



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

### Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

### About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>

**B** 471167









# ANNUAL REPORT

OF THE

## Superintendent of Public Works

ON THE

### CANALS OF THE STATE

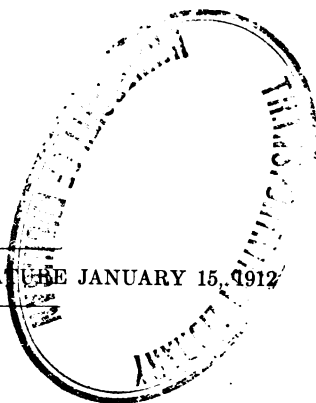
FOR THE

Year Ended September 30, 1911

AND ON THE

TRADE AND TONNAGE OF THE CANALS FOR THE YEAR 1911

TRANSMITTED TO THE LEGISLATURE JANUARY 15, 1912



ALBANY  
THE ARGUS COMPANY, PRINTERS  
1912



# STATE OF NEW YORK

---

No. 14.

---

## IN SENATE

JANUARY 15, 1912.

---

### REPORT OF SUPERINTENDENT OF PUBLIC WORKS.

---

STATE OF NEW YORK.

OFFICE OF SUPERINTENDENT OF PUBLIC WORKS.

ALBANY, *January 5, 1912.*

*To the Honorable, the President of the Senate:*

Sir.— I have the honor to transmit herewith, in compliance with the statute, the annual financial report of this department for the fiscal year ended September 30, 1911, including disbursements for ordinary repairs and operating expenses; a statement of the trade and tonnage upon the canals during the season of navigation of 1911; also, a statement as to the condition of the canals and of the work of improvement connected therewith, under special appropriation, in progress or completed during the year ended December 31, 1911, and the expenditures on account thereof; also, a brief statement as to the special bureau work under the jurisdiction of this department; and also a statement as to the status of the Barge Canal work as authorized by chapter 147 of the Laws of 1903, as amended, as well as that authorized by chapter 391 of the Laws of 1909.

CHARLES E. TREMAN,  
*Superintendent of Public Works.*

~~Transportation~~

Library

TC

60

11

1910/11

# REPORT.

---

OFFICE OF THE SUPERINTENDENT OF PUBLIC WORKS.

ALBANY, N. Y., *January 5, 1912.*

*To the Honorable, the Legislature of the State of New York:*

In compliance with the statute, I submit herewith a report as to the condition of the canals of the State, the improvements and repairs made on the canals during the past year; a statement of the moneys received and expended, as well as a statement of the trade and tonnage of the canals during the season of navigation of 1911.

I also submit details of the work on the Barge canal improvement; and certain recommendations relative to matters under the charge of this department.

## NAVIGATION AND TONNAGE.

There was carried on the canals of the State during the season of navigation just past, a total of 3,097,068 tons. This tonnage as compared with the total of 3,073,412 tons carried in 1910, shows an increase for the season of 1911 over the previous year of 23,656 tons, notwithstanding the fact that a disastrous break, due to the Barge canal construction work, occurring in the Erie canal at Bushnell's Basin early in the season, resulted in a suspension of navigation on the canal for nearly four weeks. An examination of the records for the year 1910 shows that during the period of that year corresponding to the period of the past year during which navigation was interrupted by reason of the break and its repair, 88,981 tons of freight were carried on the canal. Assuming that a like amount of traffic would have been handled on the canal during the period of suspension had there been no break, the total tonnage for 1911 would have been brought up to 3,186,049 tons, a total greater than that carried on the canals in any year since 1907.



As has been the case for several years, by far the greater part of the canal tonnage the past season was made up way freight, the way freight exceeding the through freight by nearly 400 per cent. The total way freight carried was 2,427,509 tons, being made up of 1,856,675 tons way freight east, and 570,834 tons way freight west; while the total of 669,559 tons of through freight is represented by 397,990 tons carried east and 271,569 tons west.

The increase of 23,656 tons in the total tonnage for the season over that of 1910 is caused by the large increase in shipments of way freight over those of last year, the total for the past season of 2,427,509 tons exceeding the total of 2,268,232 tons for the previous season, by 159,277 tons. This increase, however, was offset to the extent indicated by the falling off in through shipments, the tonnage of 1911 of 669,559 tons of through freight falling short of that of 1910, which was 805,180 tons, by 135,621 tons.

While the statistics of the canal tonnage for 1911 show an increase of but 23,656 tons over the previous season, the actual increase must be considered as being much larger when the fact is taken into consideration that in the total for 1910 the tonnage on the Black River canal of 175,996 tons is included, while during the past season only 81,920 tons is credited to that canal, a loss of 94,076 tons. The tonnage carried in 1911 represents the normal business of that waterway, the larger figures for the previous year representing the activities of contractors for Barge canal work in that vicinity in the transportation of commodities to be used in the work which has now been completed. If the tonnage carried over this lateral canal in connection with the canal improvement work were to be deducted from the totals for the past year, and only that business which normally belongs to that canal credited, the total increase of the tonnage carried on all canals for the season of 1911 over that of 1910 would exceed 100,000 tons.

The amount of tonnage carried by each canal as compared with the statistics of the previous year was as follows: Erie canal, 2,031,735 tons as against 2,023,185 tons in 1910; Champlain canal, 770,668 tons as against 684,027 tons the previous year; Oswego canal, 113,891 tons as compared with 110,079 tons in 1910; the Cayuga and Seneca canal, 98,854 tons against 80,125 tons the previous year; and the Black River canal, 81,920 tons in 1911 as compared with 175,996 tons in 1910, each canal showing a sub-

stantial increase over the preceding season, excepting the Black River canal, whose loss has been explained above.

As to the commodities carried over the canals, the greatest increases are shown in the shipments of hay, where 35,517 tons were carried in 1911 as compared with 20,704 tons in 1910; of ice, 82,443 tons as against 73,350 tons in 1910; of stone, lime and clay, 1,170,564 tons being carried the past season as compared with 988,488 tons in 1910; of anthracite coal, 292,927 tons as against 284,702 tons the previous season; of bituminous coal, 178,267 tons as against 163,323 tons in 1910; in the shipments of sundries, there being 31,674 tons carried as against 21,253 tons the previous year; and of wood pulp, 52,504 tons in 1911 as against 22,910 tons in 1910.

Decreases are shown in the shipment of the following commodities from the figures of 1910: In boards and scantlings, 370,588 tons being carried in 1911 as against 418,282 tons in 1910; in wheat, 143,373 tons being shipped the past season as compared with 179,250 tons in 1910; in corn, 71,003 tons in 1911 as against 123,190 tons the previous year; in oats, 62,217 tons in 1911 as against 84,408 tons in 1910; in domestic salt, 104,192 tons as compared with 110,617 tons the previous season; and in miscellaneous merchandise, where there were but 154,481 tons shipped in 1911 as against a shipment of 178,996 tons in 1910.

Notwithstanding the temporary interruption to canal traffic at the beginning of the navigation season, the season just closed has been a profitable and prosperous one for the boatmen. At no time was there any difficulty experienced on the part of boatmen in securing cargoes at profitable rates; in fact, the only difficulty which was experienced was that on the part of the shippers and forwarders in securing boats for the transportation of the commodities offered.

Aside from the unfortunate break at Bushnell's Basin at the very opening of the season, and which, as I have heretofore stated, was entirely due to Barge canal operations at that point, the season just passed has been free from interruptions to navigation of any kind, a record not surpassed by any previous season for several years.

In addition to the craft navigating the canals of the state, as represented by the tonnage figures above given, the records of the

department show that during the season of 1911 there were issued to pleasure boats to use the State's waterways, permits to the number of 1886.

#### DETENTIONS TO NAVIGATION.

The only serious detention to navigation during the season was that resulting from the break in the canal at Bushnell's Basin on May 19th. Though this was one of the most disastrous breaks in the history of the canal, the repairs were completed and navigation re-established on June 11th.

The repairs involved the placing of upwards of 60,000 cubic yards of concrete, the handling of between 70,000 and 80,000 cubic yards of material for fill and embankment, and the placing of upwards of 900,000 feet board measure of two inch plank for the protection of the embankment against wash; and because of the character of the material at this point the placing of practically 50,000 bags filled with sand as a further protection, besides the driving of several hundred feet of 16 foot steel sheet piling, and other incidental work. This break was incidentally if not directly due to the operations of Barge canal contractors. That the records, so far as the State is concerned, may be made as complete as possible, I have furnished a detailed report of this break and of the operations of the contractors preceding the break, to the Attorney-General, to the end that the facts may be fully available in case any action may hereafter be brought in this matter.

The operation of the existing canal between the 15th of May and the 15th of November, as is required by the Barge canal statute, has been a serious problem since the starting of this work, particularly at such points as the Barge canal follows the alignment of the present canal. In the case of many contracts, the plans plainly show work to be performed which, if performed, would destroy present structures. Inasmuch as the substitute structures could not be completed in some cases within a period of less than two years, it may be realized how difficult it has been to satisfy navigation interests and at the same time fulfill the obligations to the contractors, and in fact, to the State, since the department's obligation to the State is to further construction work in every way possible. It not infrequently has happened that the anomalous condition has been presented to this department of a contractor, ob-

ligated and under bond to do and perform certain work, and demanding to be permitted to do and perform such work, where the department has been compelled to refuse the contractor a request to proceed with such work, because of the fact that this would involve the placing of the existing canal entirely out of commission for a period of one, two and in some cases three years.

The Barge canal statute and Barge canal contracts provide specifically that a given contractor shall not interfere with navigation between certain periods, namely, between May 15th and November 15th. There is certain work which by its very character cannot be done, or at least well and acceptably done, during this closed period, either with economy to the contractor or with satisfactory results to the State; however, certain of the work is of such a character as that it is presumed to go forward during the season of navigation. Generally speaking, there has been a disposition shown by contractors to respect the rights of boatmen and forwarders; and on the other hand, on the side of those boatmen and forwarders who have been close students of the problems involved, and who are appreciative of the advantages to accrue to them upon completion of the canal, there has been a disposition to regard the rights of contractors and to overlook the inconvenience and temporary disadvantages which result to them from a progress of the work during the canal season.

From the study which I have given to this phase of the problem, I cannot but believe that it would have been greatly to the financial advantage of the State, and in the end of great financial advantage to boatmen and forwarders, had the statute provided that during the progress of work navigation should be suspended for a period of greater or less length. I believe two closed seasons would have been sufficient to accomplish the desired result. It goes without saying, that, particularly in the matter of concrete work, the summer season is better adapted than is the winter or closed season of the canal, and this is equally true as to the construction of embankment. I am not disposed to advise at this time that navigation should be wholly suspended even for a season, and yet if this were done, even at this day, the final completion of the improved waterway would be advanced so as to bring the date for placing the new canals in commission nearer by two calendar years.

As the work goes forward, the menace to navigation by reason of the opening of old structures and the starting of new is bound to increase. While the break at Bushnell's Basin was the only one with which the department had to contend last year, there were many other points where serious leaks in and about structures which had been disturbed by contractors, gave the department the greatest apprehension lest breaks should result. Upon assuming office in January and becoming cognizant of existing conditions, I addressed a communication to the State Engineer and Surveyor, requesting that instructions be given to all engineering forces in charge of contract work, to observe the greatest care in the matter of interference with structures, and that official cheerfully complied with my request. All of the subordinates in this department were impressed with the necessity for extreme vigilance, and from April 1st until long after mid-summer conditions at many points were so menacing as to require my own presence and that of the members of my force who were skilled in work of this kind, almost constantly in the field.

The conditions above recited, which prevailed the past season, were worse than those of the previous season, just as the conditions of 1910 were worse than those which prevailed in 1909. I cannot help but believe that the conditions which will confront the department next year, so far as the maintenance of navigation is concerned, will be more serious than were experienced this year, in spite of all the precautions that have been or may be taken. Foreseeing this, I have invited and am receiving the closest cooperation on the part of the State Engineer and Surveyor and his forces, to the end that dangers may be foreseen, where possible, and remedies applied. The forces of the department have been especially organized for next year with a view to watchfulness, to the elimination of danger where possible, and to the minimizing of the danger where elimination is not possible.

Without taking a too pessimistic view of this subject, I feel it is not impossible that, notwithstanding all the precaution which both the State Engineer and Surveyor's Department and the Department of Public Works may take, and all the watchfulness which may be exercised, construction work might result in a break in the canal which would place the canal absolutely out of commission for the whole or the greater part of a navigation season.

There are several places, such as Holley and Bushnell's Basin, where owing to the character of the soil and the height of the embankment, the danger of breaks will continue to exist until the Barge canal improvement shall be completed.

#### BUREAU OF NAVIGATION.

The records of the Navigation Bureau, maintained by the Superintendent of Public Works under the provisions of Chapter 37 of the Consolidated Laws, known as the Navigation Law, show the following work done by the inspectors in that bureau during the year just ended:

There were issued to pilots and engineers, joint licenses to the number of 237, these being made up of 160 renewals of former licenses and 77 original licenses; to engineers, 155 licenses, 114 being renewals and 41 being original licenses; to pilots, 76 licenses, 49 of this number being renewal licenses and 27 being originals; and to masters of boats, 67 licenses, of which 59 were renewals of those formerly issued and the remaining 8 being licenses of first issue; making a total of the licenses issued by this bureau for the year, of 535.

There were in all 317 vessels plying the State waters, inspected by the bureau officials to which were granted certificates, 229 of this number being motor vessels and the remaining 88 being operated by steam. In addition to this number, 17 other vessels received the attention of the inspectors, but from these certificates have been withheld pending the making of repairs which, in the judgment of the inspectors, were necessary to be made before the vessels should navigate State waters.

Of the vessels inspected, the officials of the bureau found deficiencies in equipment in 88, and such deficiencies were ordered supplied; and in the case of 47 of these, the need of repairs and the deficiency in equipment were such that certificates were withheld from the vessels until all requirements had been completely fulfilled.

Of the total number of vessels which received the attention of the inspectors during the past season, 99 were presented for the first time, while of the number inspected in 1910, 78 vessels were found to have been withdrawn from commission the past year.



Section 34 of the Navigation Law provides for the payment of fees for inspections, examinations, licenses and renewals, and the revenue from this source during the past season amounted to the sum of \$3,891.

I would also add that no loss of life among passengers transported upon vessels plying the inland waters over which the State has jurisdiction nor among the crews operating such vessels has been reported to this department during the year 1911.

#### BUREAU OF CLAIMS.

The work of this bureau during the past year in the preparation of the defense of the State of claims brought against it on account of the canals, shows excellent results. About one-fourth of the claims filed during the year 1911 were brought on account of leakage or overflow from the canals or on account of personal injuries received in connection with the operation of canal structures, and the thorough investigations made by this bureau promptly upon receipt of reports of occurrences on which claims might be based have placed the State in the best possible position when it came to a trial of the claims.

There were filed during the year 1911 claims against the State on account of the canals, to the number of 575, of which 434 were brought on account of the Barge canal improvement and for appropriations of land in connection with such work, and 141 for damages on account of leakage, overflow and personal injuries resulting from the present canal, the Barge canal claims filed amounting to \$14,502,694.67, and those for other causes, amounting to \$133,108.56.

During the past year 584 claims have been disposed of, this number being made up of 252 claims on account of the Barge canal improvement, and 332 claims for leakage, overflow and personal injuries. Of the Barge canal claims disposed of, there was awarded to the claimants a total of \$519,514.79 as compared with a total of \$2,081,008.94 which was claimed; and as to the other class of claims disposed of, while the totals of the demands made aggregated the sum of \$614,277.95, the claimants were successful to the amount of \$4,185.71 only. This splendid showing in the latter class of claims was made possible by reason of the energetic

and thorough manner in which the agents of this bureau made investigations and collected data immediately following the report of occurrences which it might be expected would be made the basis of claims, and this has resulted in the dismissal of a large number of such claims with no recovery whatever.

Of 136 Barge canal claims which were brought to trial, awards were made in the case of 130, the amount of the awards being \$275,097.09 as compared with a total of \$642,130.82 for which the actions were brought, and in the case of the remaining six claims, having a total of \$678,516.27, no determinations have as yet been made. Of the overflow and personal injury claims, 17, with a total of \$62,760, were presented for trial of the issues involved, and these trials have resulted in determinations in the case of 16 of these claims with awards to the claimants of \$2,985.71, as against a total of \$42,641 claimed, one claim still being held pending decision. There were dismissed before trial with no payment whatever by the State to the claimants, 38 Barge canal claims having a total of \$258,788.06, and 310 overflow and personal injury claims with a total of \$496,816.95.

In addition to the above there were disposed of during the past year 81 Barge canal claims whose issues had been tried in 1910, awards being made of a total of \$244,417.70 as against a total of \$656,714.67 claimed, and four others of such claims, tried in 1910, having a total of \$523,375.36, were dismissed in 1911 with no recovery whatever. Of the other class of claims, in the case of one claim which had been tried the previous year and which had a total of \$6,448, an award of \$1,200 was made in 1911; and six such claims, having a total of \$68,372, were dismissed in 1911 without award.

The largest claim tried during the past year was that of Sundstrom & Stratton, in amount \$598,334.70, on account of alleged damages suffered in connection with a contract for Barge canal improvement formerly held by them, and a decision in this case is still pending.

It is a matter of great interest to note that in the account of the work done by the bureau of claims not a single claim is shown to have been settled during the past year by stipulation with any return whatever to the claimants, all claims disposed of either hav-

ing been settled by their withdrawal or dismissal before trial or else determined after a trial of the issues involved.

There are at present on file 797 claims on account of the Barge canal work, amounting to \$23,671,629.40, and 719 claims for other causes, with a total of \$825,050. Large claims filed during 1911 include those of the West Virginia Pulp & Paper Company, in amount, \$5,045,067.46, and the Waterford Electric Light and Heating Company, for \$1,250,000, the same being for damages to alleged water power and riparian rights on the Hudson river, and that of George L. Pratt, for \$3,243,450, for damages for similar alleged rights on the Oswego river. Another large claim filed is that of the Empire Engineering Corporation, in amount, \$671,074.97, for damages alleged to have resulted from certain changes made in the plans and specifications of a Barge canal contract held by that company. Of the overflow claims filed in 1911, 52, with a total of over \$10,000, are on account of alleged damages caused by the overflowing of Moyer creek in 1910, and 30, totalling nearly \$9,000, are brought for alleged damages in connection with the raising of the upper Oswego Falls dam.

In order that this bureau, whose work has resulted in so much saving to the State, may be continued and maintained in an efficient state, I recommend that the usual appropriation of \$15,000 be made for its support.

#### SPECIAL EXAMINER AND APPRAISER.

The work of the Special Examiner and Appraiser, whose duty it is under the statute to make settlements with the owners from whom property had been taken for use in connection with the Barge canal improvement, where such settlements are possible and in the interest of the State, has been productive of excellent results.

The records of this bureau show that during the year just passed, 333 agreements were entered into by the Special Examiner and Appraiser with those claiming damages by reason of the improvement work, the amount of such agreements aggregating \$1,741,955.03. These agreements cover 392 separate parcels of land appropriated by the State, and located on 51 different contracts.

The total number of agreements which have been made by the

Special Examiner and Appraiser with property owners for Barge canal appropriations, since the beginning of the work in 1905 down to the ending of the year just past is 1,007, with a total in money of \$4,722,000.17.

#### DISPOSAL OF CANAL LANDS.

In another place, I have called to your attention the importance of an early study of the problems involved in placing the improved canal in operation, and other kindred and allied subjects. Of hardly less importance from a financial viewpoint is the subject of disposing of lands which, upon the completion of the improved canals, will no longer be needed for canal purposes. That some systematic scheme should be evolved and adopted which would result in assuring the State that it will receive full market value in return for all such property, would seem to be patent to all. In the case of the abandoned Chemung, Genesee Valley and Chenango canals, provision was made for releasing the land to be abandoned to adjoining owners, practically without compensation other than their release of the State from the responsibility of maintaining structures, etc. Not only the character of at least large portions of the canal which are to be abandoned upon the completion of the enlarged canal, but the times, and public sentiment which now prevails, dictate a different method of treatment, particularly in the case of the Erie canal. This waterway passes through the heart of many villages and of several large cities, and there is no doubt in my mind but that if the subject is handled wisely, millions of dollars may be realized from this property to be abandoned. In several of the cities already there exist within the blue-line substantial and expensive structures, fronting avenues and streets in the center of the cities, where frontage value would run into thousands of dollars. At some points the abandoned canals will furnish ideal sites for factory and business development, and at other points portions of the canal to be abandoned undoubtedly will be sought after by railway companies, because of adaptability for under-grade crossings.

Any legislation looking to the disposal of this property should

be based upon a careful study of conditions and of values, and the legislation proposed should be of such a character as to absolutely assure the State a full and equitable return for property so disposed of.

There are localities undoubtedly where property is to be abandoned, which because of its location and adaptability for streets and highways, will be desired by cities, towns and villages. Where property is to be devoted to a public use, it goes without saying that conditions surrounding its disposition may be somewhat more lenient than in the case of disposing to private interests; but even here the greatest care should be taken lest abuse shall creep in. To the end that properties so to be abandoned and which are desired for such public use by cities and villages, may be so acquired, I recommend the passage of a general statute, if such course is practicable, and not antagonistic to the charter provisions of cities of the several classes, so that cities and villages where they so desire may be equal competitors, and have authority to acquire. It seems to me that a general statute of this character is far preferable to special acts relating to different sections of the canal and affecting different cities, and I believe that such a general statute should carry with it the repeal of Chapters 893 and 894 of the Laws of 1911, which empowered the city of Schenectady to acquire canal lands for street and highway purposes. There is danger that a special statute would be construed as giving a city or village paramount rights to acquire, but no paramount rights should be conveyed.

#### REGULATIONS FOR OPERATION OF THE BARGE CANAL WHEN PLACED IN COMMISSION.

The rapid progress made on Barge canal construction work during the past year and the promise which this gives of an early completion of the enlarged waterways points to the wisdom and need of giving early and careful consideration to the various problems which will surround the placing of these enlarged canals in commission and their operation, maintenance and repair. Undoubtedly, the cost of operating the enlarged and improved canals will necessarily be greater than in the case of the unimproved waterways but such increase should be kept to a minimum. and

this can be done only by the application of the best administrative methods.

With the completion and placing in commission of the enlarged canals, it would seem that the cost for extraordinary repairs for some years should not be very great unless occasioned by injury to or destruction of structures by unforeseen causes, or unless weaknesses shall develop in and about structures where such results cannot of course be anticipated.

As to the ordinary charges, that is to say, the expenses on account of the up-keep, only actual experience can determine whether, on account of the improved methods of construction as applied to the enlarged canals in contrast to the now discarded methods as applied to the construction of the old waterways, by the application of economies the maintenance cost for the improved waterways can be kept within, or whether they will exceed, those of the old canals.

The State having undertaken this great improvement in the interest of a greater commerce is morally bound, as I believe, to do all that is possible to render the canals efficient in assisting the upbuilding of commerce, and to this end what knowledge can be gained as to the type of craft which can be best and most profitably utilized on the canals for the carrying of commerce, should be gained and disseminated.

Many of the statutes having to do with the maintenance as well as the operation of the existing canals and many of the regulations have been in force since the early days of artificial waterways, and while undoubtedly many of these statutory provisions and regulations are still desirable to have in force, others undoubtedly have become either obsolete, or if not, will be largely obsolete so far as their application to the improved and enlarged canals is concerned.

These problems, such as determining so far as possible the character of craft to be most profitably utilized, determining as to what statutes and regulations now in force should be repealed or modified, and what new statutes or regulations should be provided for, the methods to be employed in the matter of operating forces, a study as to proper organizations both as to men, machinery, location and equipment of shops and the various other problems



which I have pointed out, and others which undoubtedly will be suggested by a study of these, can best be studied and solved by persons who are experienced in the operation, maintenance and general repair of waterways and who have or have had to do with water commerce.

I would therefore recommend the creation of a commission with authority to make the most careful inquiry as to the methods applied in the matter of administration, operation, and repair and maintenance forces, and also as to the type of craft employed on other canals and waterways, extending their inquiry wherever such study would seem to give promise of assistance in the solution of the problems in hand.

#### MODERN TRAFFIC AND CANAL BRIDGES.

Modern traffic, which has resulted in complicating the work of those having to do with road construction, not only in cities and towns, but throughout the country districts, has produced a problem most difficult of solution so far as the maintenance of canal bridges is concerned.

In the case of new structures over new stretches of canal, and over such portions of the existing canals as are being enlarged, these have been designed with a view of at least partially caring for the increased traffic burdens; but in the case of the hundreds of structures over the existing canals, some of which may be abandoned and others of which are likely to be maintained either as feeders or otherwise, there is hardly a single bridge which may be regarded as safe for the heavy loads which modern traffic produces. In the case of all canals and feeders the State, under the statute passed in 1843, accepted the responsibility for maintaining bridges at all points where highways existed prior to 1839. This responsibility still exists and is likely to continue, unless the State by some method not yet contemplated, shall succeed in ridding itself of such responsibility. Any such method must of course be expensive, and for this reason it is doubtful whether an attempt along these lines would be successful even if undertaken.

Very many of such structures are built of wood, and the others are largely of the Whipple — truss type, having been constructed thirty or more years ago, and aside from the fact that they are

weakened by age, none was intended to care for modern traffic, and few if any were intended to bear a load much in excess of three tons.

With the construction of improved highways and the improvement of city and village streets, there has followed the introduction of modern highway and street vehicles — unless these can be termed the cause of the improvement instead of following as an effect. For a number of years the conveying of traction engines over these structures has been attended with great danger, and in a number of cases has resulted in damage to property, and in one or two cases by loss of life. The department has been very careful in the matter of the care of these structures, and has endeavored wherever conditions were possible to strengthen the bridges so as to reduce danger of accident to the minimum. In hundreds of cases notices have been posted warning the public as to the limit of load which a given structure would safely bear, but wherever this limit has been below the modern load the department's administration has been the cause of serious complaint. It is a legal question which I do not assume to answer, whether by thus posting structures the State relieves itself of responsibility, in the event that the posted orders are disregarded and accident and damage result; but this posting has been done on the theory that it at least would be an element of defense in the event that legal process should be resorted to against the State.

I am not one who believes that even this condition of State structures, if allowed to continue, can restore the former load conditions of traffic, or stop the movement which has been given new impetus by the introduction of motor trucks to accommodate the increased and increasing ton-load traffic; nor do I believe that the State's finances are such as that it can or should attempt the reconstruction of all these hundreds of structures in the near future; but that some careful scheme or plan should be devised whereby the State may discharge its full responsibility, thereby encouraging instead of discouraging improvements which make for a greater prosperity, would seem to me to be not only wise, but an absolute necessity.

I could cite any number of specific cases of structures at points where the State now is and will remain responsible for maintenance, where a distinct hardship exists because of the non-adapta-

bility of such structures to meet traffic demands. In a number of such cases the town, village and city authorities have appealed to this department for relief, demanding the reconstruction of bridges without delay. While there has been an effort made to relieve emergency conditions, the department has been compelled to explain that the funds appropriated by your honorable body for the care and maintenance of the canals, are based on estimates which are barely intended to meet normal expenditures for maintenance, repair and operation, and that specific appropriations must be asked for and secured if the department is to give permanent relief. One such structure is located at Vliet street, Cohoes. This structure when new was designed for a load of not more than five tons, and because of its age the present safe capacity is not in excess of three tons. The State Engineer and Surveyor has been called upon to contrive some method whereby the bridge can be strengthened, but this to the mind of that official is impossible. This is given as a concrete example, for the reason that the traffic within the last few years at this point has increased not only in amount but in ton-load; the extreme motor truck load being used on the street and seeking to use this bridge is from twelve to fifteen tons. I recommend that this subject be studied with a view of such solution as will adequately guard the State's interests without jeopardizing the natural growth and expansion of traffic which modern methods create and insure.

#### SPECIAL IMPROVEMENTS AUTHORIZED BY THE LEGISLATURE.

There were a number of special improvements authorized by your honorable body at its last session, which, though it was late in the season before the authority to proceed with this work was given, have been wholly completed or are in a good state of progress. Of these one of the most important is that authorized by Chapter 132 of the Laws of 1911, which appropriates \$75,000 for the improvement of the channel and banks of the Mohawk river and West Canada Creek at Herkimer.

This work was authorized in order to do away, if possible, with the danger of a renewal of flood conditions at Herkimer, which a few years ago resulted in doing a great deal of damage, and which a year ago, while not actually doing damage, created grave fear in

the public mind lest a repetition of the damage of the previous year should result. The statute provides that the work shall be done under contract on plans prepared by the State Engineer and Surveyor. As soon as the act became a law the State Engineer and Surveyor was requested to prepare plans, and these were submitted and contract entered into on October 21, 1911. The work is now well under way, and though it is unlikely that it can be fully completed before late next spring on account of weather conditions, it is hoped that the work will have been so far progressed by the time the season of floods returns, as to give a very large measure of relief, if not, in fact, to absolutely prevent all possible damage.

It is my belief that even after the improvements authorized by this act and which are provided for by the plans, shall have been completed, the full measure of relief expected and desired by the village of Herkimer will not be provided; nor until steps shall be taken by the local authorities to compel the reconstruction of the highway bridge and the New York Central and Utica and Mohawk Valley railroad bridges, in such manner as that the piers of these three structures shall be in alignment. These piers at the present time are so badly out of alignment that they form the framework of a coffer-dam, which is rendered complete as soon as the ice begins to lodge against them.

Chapter 262 of the Laws of 1911 appropriated \$30,000 for repairing and reconstructing the dikes and repairing the banks of the Chemung river in Elmira. This work was undertaken by department forces on the 17th of August, the plans adopted involving the construction of concrete retaining wall, since the various timber dikes which had been constructed in previous years at several points along this river had been found to be of short life. While the concrete construction is considerably more expensive than the timber construction, it is believed that inasmuch as the State has assumed the responsibility for the maintenance of these dikes, in the end the concrete, being permanent, would be the more economical. The appropriation of \$30,000 was made without any careful estimate as to the amount of money which would be necessary to reconstruct and extend dikes where the same might be found to be necessary. For this reason the work was under-

taken at those points where there was greatest danger of damage in the event of excessive floods. One such point was that beginning at Madison avenue bridge on the north side of the river easterly, a concrete wall 1,200 feet long and 16 feet high of the gravity type, being constructed. On the south side of the river where the embankment was not so high as on the north side, a concrete wall similar in design, 561 feet in length and nearly 12 feet high, was constructed. The amount of the appropriation was not sufficient to care for the back-fill, and for this reason arrangements have been made whereby the back-filling will be done jointly by the city of Elmira and by adjoining property owners. With the construction of the wall on the north side it is believed that permanent protection has been supplied to a very large section of the city, which, but for this improvement, would be subjected annually to disastrous floods, endangering the lives of the inhabitants and destroying large amounts of property. If the full benefit is to be realized from the work already done, and if the State by the construction heretofore of dikes and embankments has assumed a responsibility, or has intended to discharge a responsibility heretofore resting upon it, a further sum should be appropriated for a continuation and completion of this work. I believe that for an additional amount of \$25,000 the work can be completed and rendered permanent. I would therefore recommend such an appropriation, *contingent, however*, upon the city of Elmira entering into an undertaking whereby upon the completion of the dikes as contemplated, under such additional appropriation, the State would be relieved from any and all future claims, and from any and all responsibility for the maintenance of the dikes.

Chapter 287, Laws of 1911, provided an appropriation of \$5,000 for repairing the State dam in the Black river at Carthage. Owing to the fact that not all of the property owners adjacent to the dam were willing to co-operate with the department when it was ready to proceed with this work, the co-operation being necessary to the end that the work should be done economically and effectively, and within the appropriation, the work was not at that time undertaken. I did not feel that I would be justified in undertaking work which primarily would seem to be for the benefit of private interests, unless such interests were willing to release the

State from any liability on account of temporary loss of power, or other damage. Since that time a better understanding has been had between such interests and the State, with the result that as soon as flood conditions have passed and there is a return of low water, the work will be undertaken, and I believe can be effectively done within the amount of the appropriation.

Chapter 806 of the Laws of 1911 appropriated \$50,000 for the improvement of the Black River canal north of Boonville. This appropriation is only about half the amount which the department estimated as necessary, if the whole of the canal is to be restored to a safe and proper navigable condition. It is believed that the work which can be done for the amount already available, and which work has already been inaugurated and is being progressed as rapidly as weather and other physical conditions render possible, will permit the restoration of navigation on that portion of the northern Black River canal from Boonville to Lyons Falls; but there should be, since the State has finally adopted the policy of retaining and improving its waterways, rather than abandoning any such, an additional appropriation of not less than \$75,000, to enable the department to reconstruct all structures and restore all of the canal to Carthage to a safe and proper navigable condition. When so restored it is believed that this arm of the canal will, by the tonnage it shall carry, justify such expenditure, and that the benefits to accrue to interests in the northern part of the State in the way of cheaper freight delivery, as well as in a regulation of railway traffic, will fully justify the State in this undertaking. It would not be necessary that this appropriation should be made until 1913, inasmuch as the season of 1912 will be needed to complete the work already authorized.

Chapter 836 of the Laws of 1911, provides an appropriation of \$3,000 for cleaning out Wood creek. This work has been completed by department forces.

Chapter 877 of the Laws of 1911, provides an appropriation of \$20,000 for the construction of a bridge at East Dominick street, Rome, plans for which are under preparation by the State Engineer and Surveyor.

The Supply Bill provided an appropriation of \$2,000 for repairing the State dam in the St. Regis river, the sum of \$2,000 for repairing the dams and locks in the Saranac river, and \$7,500



for repairing the Shinnecock and Peconic canal. The work of repairing the St. Regis river dam and the locks in the Saranac river has been completed. As to the Shinnecock and Peconic canal, after a personal examination of the structure and investigation as to the utility of the canal, and the sentiment regarding the operation of the tidegates as they are now constructed, I deemed it my duty to confine the work under the present appropriation to such restoration and re-enforcement of the banks of the canal as were necessary to a proper protection of the channel, leaving the question as to gates to be taken care of later. This protection work has been completed at a total cost of \$4,481, leaving a balance of \$3,019 still available. It is possible that as a result of tidal storms, which are frequent and severe in the vicinity of this canal, damage will result which will require an additional expense next spring for bank protection and channel cleaning, and the balance in the fund will be available for this purpose.

As to the matter of tide-gates, it seems to me that the conditions resulting from their operation, coupled with the sentiment as regards the State's right to maintain such gates, open up a sufficient legal question to render it desirable for the State to furnish the protection and benefit which the tide-gates were planned to furnish, by some other method. The purpose of these gates, as I understand, was to permanently raise the elevation of water in Shinnecock Bay; that is to say, the gates opening toward Shinnecock Bay and being left to flow with the tide, would open at flood tide and close when the tide began to ebb, thus leaving the water in Shinnecock at the flood elevation, or largely so. The traffic through this canal is from one bay to another, and from Shinnecock and its entrances and tributaries into Peconic Bay and thus out into the open water of the ocean. It has come to be a great highway for pleasure craft. Craft reaching the gates at flood tide find easy passage from Shinnecock into Peconic Bay and the open water beyond, but those reaching the gates after the tide has begun to ebb and finding the gates closed, must await the return of flood conditions. This unlooked for delay, extending over many hours, has been a source of great inconvenience and annoyance to boatmen passing through this water highway, and the annoyance is repeated when boats reach the gates from Peconic Bay on their way through to Shinnecock and Great South Bay. This annoyance

has resulted in the creation of two factions in this vicinity, one desiring the gates to be permitted to exercise their functions and the other being opposed. The first element is made up of those who, having found the shores of Shinnecock desirable for summer residence purpose, as a result of the increased height of water, have built their homes and cottages on the shores thereof, but who find conditions far from desirable when the gates are placed out of commission. This condition resulted in the committing of depredations very soon after the gates were installed, on one occasion the gates being lifted from their anchorage and allowed to float out to sea. After they were brought back and again installed, the gates were spiked or anchored open, so that they were a useless appendage. Those opposed to the operation of the gates raised the contention that there is no authority in law for the State to impede navigation, and persons so holding have threatened legal proceedings should the gates be again installed, and made to exercise the functions for which they were intended.

I do not pretend to say on what basis the State originally undertook the construction of this canal and the construction and maintenance of tide-gates; whether there was a responsibility which the State sought to discharge by these measures, or whether it was an undertaking simply in the interests of development, the State expecting a proper return by indirect sources. In any event it is clear to my mind that the State having undertaken this improvement, and having paid out many thousands of dollars for reconstruction, repair and improvement, it is highly desirable, unless the State at the present time is disposed to abandon this canal and wipe all responsibility off the books, to provide for the construction of a lock at this point which may be made to perform the functions of tide-gates, and which at the same time will not impede and make possible traffic through the canal only at the hours when flood tide prevails. I assume that a lock of sufficient dimensions for the care of traffic passing to and fro on this canal could be constructed for the sum of \$40,000. I would therefore recommend such an appropriation.

I would further recommend, if the State is to retain this structure, that there should be proper legislation looking to the placing of this canal and its structures under the jurisdiction of the

department of public works or some other department, with a small appropriation sufficient to maintain a locktender in charge of the structure.

What I have said as bearing on the Shinnecock and Peconic canal and lock, is equally applicable to a number of other structures. The State has in many instances, such as locks and dams on the Saranac river and at other points, provided appropriations for the improvement, but has made no provision for the maintenance, care and jurisdiction of the structures when completed. This to my mind is short-sighted, inasmuch as the State, having constructed, is, to the public mind at least, responsible for maintenance and repair. In the end it will be much more economical if the State accepts this view (unless the other view is to be taken and steps followed looking to abandonment), and places the structures under the jurisdiction of some responsible officer so that the safety of the structures may be looked after, their operation provided for, and rules and regulations governing their use adopted, with sufficient authority to compel compliance.

In examining the different structures, improvements and constructions which have been provided in years past by special appropriations and which are entirely outside the canal, or other strictly speaking State enterprises, it has been found that many such have been provided where specific responsibility and direct obligation are not clearly apparent. In some such cases, however, the making of improvements has been taken as an assumption of State liability and used as a basis for asking the State to extend the improvement or improvements, and to maintain those already supplied. The construction of dikes and dams, the straightening of creeks and rivers and the cleaning out of lakes, constitute the major portion of this class of improvements. In the case of any future appropriations for work of this character it is my belief that the appropriation should be given only upon condition that the property owners and the towns and villages beneficially affected by the proposed improvement, should release the State from responsibility to maintain; and that all acts of this character should include a provision rendering the appropriation available only upon the filing of proper undertakings and releases. In the case of dikes, dams, or other structures of this character, where

the obligation upon the State is not clearly apparent, I would recommend that structures be placed in complete repair and the State freed from the responsibility of maintenance thereafter.

#### MOHAWK RIVER BRIDGES.

From the growth of the population and increase of industry throughout the Mohawk river valley, it may be anticipated that demands will arise for an increase in facilities for crossing the river at various points. Already such a demand has shown itself in the form of bills calling for the appropriation of large sums of money for the construction of bridges over the Mohawk river at Dunsbach, Vischers Ferry and at Rotterdam. Some such bills were referred to me for consideration and report, and I felt compelled to report adversely, not because of any feeling that there was not a legitimate demand for new structures, but because of the great expense entailed. It seemed to me it would be better for the State to take account of these conditions and endeavor to solve the problem as a whole, in a manner which would be acceptable to the public and economical for the State, than it would be to provide separate structures by special enactment.

It has occurred to me that it may be possible to meet this demand at some points at least, by utilizing for highway purposes the superstructures which have been erected in connection with the movable dams. I do not pretend to say whether such plan would be feasible, but it would seem to me that by the construction of proper approaches and possibly by the strengthening of these superstructures, if found necessary, they could be made to perform a double duty, to the great benefit of the population bordering the river, and with economy to the State, without in any way jeopardizing such structures or interfering with their performing satisfactorily the functions for which they were originally designed.

I would recommend that the question of utilizing these structures for highway purposes be carefully studied, and that such legislation, if any, as may be necessary to cause this to be done, be enacted.

## CUBA RESERVOIR.

I deem it my duty to call your attention to conditions surrounding the maintenance of Cuba reservoir, to the end that a policy with reference to future treatment of this inland body of water may be defined. This reservoir was established for the purpose of supplying water to the Genesee Valley canal. When that canal was abandoned, more than thirty years ago, it was planned to utilize the water impounded by the Cuba dam as an auxiliary supply for the Erie canal, feeding through the Genesee river. The utility of the Genesee river as feed for the canal was practically abandoned more than twenty years ago, for the reason that because of lack of adequate storage, only at flood times, when this auxiliary supply was not needed, was there sufficient water to be drawn upon for canal purposes. Because of the danger of damage to the canal by floods passing through the Genesee river feeder during freshet periods, fully a dozen years ago a bulkhead was built between the river and the Genesee river feeder, since which time no supply has been received from the river or from any of its tributaries for canal use. While, therefore, the department has continued to maintain jurisdiction over the Cuba reservoir, the cost of maintenance has been reduced to the very lowest point. The capacity of the reservoir is so small in comparison with the cost of maintenance, and its distance from the canal being so very great, there has been no thought of utilizing this as a source of supply for the Barge canal.

The principal utility of the reservoir, therefore, is for summer residence purpose. Of itself it is a beautiful body of water, the shores being particularly picturesque, and for many years it has been a popular resort for outing parties. More than 200 cottages have been constructed on the shores of the reservoir, nearly, if not quite all of them being upon State land, possession having been taken without permit from the State.

Only slight repairs have been made to the reservoir during the last several years, and following the disastrous giving way of the dam at Austin, Pa., the residents in and about Cuba became very much alarmed lest a like disaster should result in the giving way of the Cuba dam. I caused an examination to be made of the structure and became convinced that there is no immediate danger,

and yet I am convinced that because of all that would be involved by a collapse of the dam, either that the State should reconstruct or that the reservoir should be abandoned. Perhaps due to an unofficial expression of the opinion held by me, residents in and about Cuba and the reservoir, have petitioned Governor Dix to intercede to the end that this body of water should be maintained. These petitions have been considered both by the Conservation Commission and by myself. While the Conservation Commission has viewed the matter as one not within its province, the structure being a part of the canal system, nevertheless, I am assured that in the opinion of such Commission the waters conserved by the Cuba dam cannot be utilized profitably for commercial purposes, and, as has been pointed out, inasmuch as they are of no utility for canal purposes, the only purpose which they can conserve is to furnish a summer resort of a most delightful character for a fairly large community, which otherwise would be without a local resort of this kind.

I assume that those who have built cottages upon the shores of the lake created by Cuba dam, though they have been enjoying the privileges for many years without consideration to the State or to others, would or at least should be glad of an opportunity to secure property rights to the shores, and that they would be willing to pay to the State a just compensation for such rights.

I would, therefore, recommend that unless your honorable body, notwithstanding all the facts that I have presented to you, shall believe that the State is morally bound to maintain this dam and reservoir, without any return to the State other than the knowledge of conferring a favor upon a deserving community, legislation shall be had looking to a formal abandonment of the reservoir and dam, and the ceding of the property so to be abandoned to such as have "squatter" rights, upon a fair compensation to the State, the negotiations to include the execution of an undertaking releasing the State from all responsibility, including that of maintenance. Unless this course be taken the dam should be reconstructed without delay, and an appropriation for this purpose should be made. Such appropriation should not be less than \$15,000.

## UTILIZATION OF CANAL WATERS FOR POWER PURPOSES.

Section 16 of the Barge Canal Law, which forbade the lease, sale or other disposition of waters impounded for canal purposes, until such time as the Legislature should enact specific provisions, looking to uniform methods for the disposal of these interests, though not specifically repealed by the so-called "Conservation" statute, is regarded by such legal authorities as have given consideration to the question, as having been repealed by inference. If so, Section 400 of the Conservation Law prescribes a specific duty to be performed by the Superintendent of Public Works in the way of initiative work looking to the disposal of surplus waters, and the department has been and is giving consideration to these matters.

I think no one can study the provisions of Chapter 147 of the Laws of 1903 and amendments thereto, which provide for the enlargement and development of the State's canal system, without regretting that in conjunction with this improvement there was not provision made for embodying a full and complete development of water power necessarily created in connection with the construction of the canal proper.

Section 4 of Chapter 147, Laws of 1903, which has to do with the appropriation of land for canal purposes, originally provided that the State Engineer might "enter upon, take possession and use lands, structures and waters, the appropriation of which for the use of the improved canals" might be deemed necessary. This limitation was removed by an amendment in 1908, so that in addition to taking possession of "lands, structures and waters, the appropriation of which for the use of the improved canals" might be necessary, there is added authority to take possession of lands "necessary for the utilization and full control by the State of the waters impounded, created and to be discharged as the result of the construction of any dam, mole, reservoir or other structure."

Section 400 of Chapter 647, Laws of 1911, heretofore referred to, which has to do with the powers of the Conservation Commission in the matter of hydraulic development and surplus of canal waters, taken in conjunction with the provisions of the Canal Law referred to, constitutes an important step in the direction of the

utilization of water powers necessarily created in conjunction with canal improvement.

At certain points where water power has heretofore existed, such as at Lockport and Medina on the western divisions of the canals, at several points on the Oswego river, and at Troy on the Hudson river, the conditions have necessarily been given much study by the officials in authority, and while at each point a separate and distinct problem exists, I believe that the public generally is so aroused and officials so fully imbued with the importance of protecting the State in all such interests, as that the very best results for the State may confidently be anticipated.

There are other places, however, where opportunities for development of power and its utilization profitably, though fully apparent, require a more careful study if the State is to receive all possible return. In some such cases it is not improbable that further legislation should be had, and in every case where such legislation is necessary I believe that a proper statute should be enacted. I refer to the several dams upon the Mohawk river, constructed in conjunction with Barge canal work, and more particularly to the great reservoirs undergoing construction at Delta, north of Rome, and at Hinckley, north of Herkimer.

In the case of Delta reservoir, whose extreme height is practically 75 feet, a drainage of 137 square miles is retained, and the reservoir when filled will have a surface area of practically four and one-third square miles. In the case of Hinckley reservoir, the extreme height of the dam is practically similar to that of Delta, but the drainage area is very much greater, covering 372 square miles, the surface measurement of the reservoir when filled being about 4.46 square miles.

The storage capacity of the Delta dam is 2,750,000,000 cubic feet, and that of Hinckley 3,445,000,000 cubic feet. It is estimated that the minimum flow from the Delta dam is 188 cubic feet per second, while in the case of Hinckley the minimum flow is 518 cubic feet per second, with an average flow of practically 1,000 cubic feet per second.

The average depth of water in Delta reservoir will be 23 feet and the maximum depth at the dam 70 feet, while at Hinckley the average depth of the whole reservoir area is 36 feet, with a maximum depth at the dam of 75 feet.



Here are two separate improvements being undertaken, gigantic in character, and so great in possibilities that undoubtedly private capital would gladly have devoted itself to this enterprise, bearing the whole expense of construction, including the cost of condemnation, in return for the right to utilize the power rendered possible, giving the State the use of the water when and after it should have performed its power function.

Without intending criticism of any of those who had to do with the development of the plans for these and other structures, knowing as I do that their authority was limited to the creation of a reservoir or reservoirs which would impound water to be drawn as navigation might require, nevertheless, it seems to me a woeful waste of natural resources if provision shall not be made, in connection with the discharge of so great a quantity of water, where the minimum flow is sufficient to create a profitable power, and whose average flow is such as to mark it as one of the choice hydraulic structures of the State; if, I say, with such conditions, steps shall not be taken to secure a full utilization for the State's benefit of these existing possibilities. With comparatively slight additional expense, it would seem to me that the waters to be discharged for feeding the canal, may be so discharged in such manner as to perform their maximum of work in developing power, without any loss in their value for navigation purposes. Steps looking to this end should be taken.

Thus far the efforts of the authorities having to do with the construction of the Barge canal, so far as increased storage is concerned, have been confined to the Hinckley and Delta reservoirs. Ultimately, I firmly believe, additional storage will need to be created, but if so there is opportunity for this both in the so-called southern, as well as in the northern tier of reservoirs. As regards Adirondack storage, the State already controls the Fulton chain and Beaver river territories, but these waters, in theory at least, are stored for the purpose of compensating water users on Beaver and Moose rivers, for waters taken from the Black river through the Forestport feeder and the Black River canal, for canal purposes, and which otherwise in their natural course would find their way into Lake Ontario. To what extent the State is obligated to compensate such owners, and as to whether the amount thus stored in excess of the amount diverted, if any, may be otherwise

utilized to the benefit of the State, constitutes an interesting and most important problem, but I believe the State's rights, obligations and responsibilities ought to be specifically determined.

In case further storage capacity shall be needed in the Herkimer county reservoir district, the acquiring of land for flowage purposes would be involved, in addition to the cost of dam construction. Notwithstanding, however, that the southern tier of reservoirs, located in the southern part of Onondaga, Oneida, Madison and Cayuga counties, is away from forest effects and benefits, these reservoirs constitute what to my mind is a most valuable object lesson in "conservation." These reservoirs, besides including Owasco, Otisco, Skaneateles and Cazenovia lakes, all natural bodies of water, embrace upwards of a dozen strictly artificial reservoirs, such as DeRuyter, Erieville, Hatches, Leland Pond, Kingsley Brook, Bradley Brook, Eaton Brook and Madison. The probable explanation for the value of these bodies of water is in the fact that they all lie within a belt where there is annually an exceedingly heavy snowfall, so that though they may be practically emptied at the close of navigation, uniformly they are full to the spilling point by the return of the next navigation season.

Though I do not pretend to a knowledge of hydraulics, from a somewhat careful examination made of these reservoirs, their drainage area and the topography of the country in which they are located, I believe that by a comparatively small expenditure, the increased capacity of this tier of reservoirs could be more than doubled, the expense in the way of condemning land being very slight. This is particularly true of Eaton Brook, Erieville, and practically all of the Madison county reservoirs, with the exception of Madison reservoir and Cazenovia lake. They lie in what originally were deep ravines, having precipitous banks.

I have not brought this matter to your attention with a view of making recommendations as to legislation, but merely for the purpose of pointing to the wealth of opportunity.

#### COHOES DAM.

There is one structure whose reconstruction at an early date has become necessary, the cost of which it has been assumed at least, is not a proper charge against the Barge canal funds. I

refer to the Cohoes dam across the Mohawk river, and which forms a pool by the connection of the present Erie canal with the old Champlain canal. I have no doubt also that the maintenance of this dam will be quite essential to the improved Erie canal; at least, during the period when the lock and dam in the Hudson river at Troy, the construction of which it is hoped will be undertaken by the Federal authorities under conditions which will not constitute a compromise of the State's interests. The maintenance of this Cohoes dam will be necessary if navigation on the northern or Champlain canal is to be maintained. The dam is of steel apron construction, and because of this fact, has been expensive to maintain on account of the great mass of ice which comes down the Mohawk river, from the river and its tributaries.

Recently, there has been a careful examination made of the structure with a view of determining whether it might be wise to make repairs. This examination shows a condition which would seem to make it unwise to attempt further repairs. I believe the State Engineer and Surveyor is likewise convinced of the futility of repairing the structure, and that he will join in recommending an appropriation for the construction of a new dam.

I have requested the State Engineer and Surveyor to furnish an estimate of cost of such structure, and this will be furnished you as a basis for an appropriation at the proper time.

#### LAKE CHAMPLAIN INLET.

Under the statute authorizing the improvement of the Champlain canal, the improvement of the new canal like that of the present canal, ends at the harbor lines at Whitehall. These "harbor lines" are defined by the Whitehall village limits, and are only a short distance from the Whitehall lock.

The inlet of Lake Champlain, though officially called a part of the lake, is a narrow irregular channel several miles in length and not at all adequate for navigation by craft which will be adapted for use on the Barge canal. Inasmuch as the State has no jurisdiction over this portion of the waterway, and inasmuch as until an improvement shall be had of this lake inlet from the harbor line at Whitehall, northerly to deep water, a distance of nearly if not quite ten miles, the full benefit of the Barge canal cannot

be realized. It seems to me that legislation should be had looking to this improvement.

Any such legislation, would of course, be embodied in the rivers and harbors bill of Congress, and I, therefore, recommend that your honorable body place the facts relating to the needs for improvement of the inlet as above referred to, before Congress, in such manner as may result in favorable action and this at an early date, so that the improvement can be completed by the time the improved Champlain canal shall be placed in commission.

#### BARGE CANAL CONSTRUCTION WORK.

A careful and succinct review of Barge canal construction work up to that time, and a careful comment as to the department's responsibility for and jurisdiction over construction work, were given by my predecessor in his last annual report, which was transmitted to you by me under date of January 23, 1911. Therefore I do not need to repeat what was said in this report; but I wish to say, from my study of the work during the past year, that I thoroughly concur with my predecessor in many of his conclusions — particularly those relating to the error in method at the inauguration of the work. I, too, believe that very much of the work, particularly that embraced in the first several contracts, was awarded hastily, and without an adequate study of the problems to be actually encountered in construction. Of the six contracts which were first awarded, only three have been fully completed and finally accepted, and of these one, Contract 5, was completed by the elimination of a portion of the work embraced under the contract because of change of alignment, and one other, Contract 4, was "completed" in that the work called for by the plans and specifications had been done, and formal certificate of completion was given, but only with mental reservations, I feel, on the part of those furnishing such certificate. This work is located at the easterly end of Oneida lake, and upon being advised that the work had been completed in accordance with the contract, I made a personal inspection of the work and found a condition existing which, it did not seem to me, comported with the certificate. This contract, in extent 4.83 miles, called for the completion of the prism twelve feet in depth, the construction of

stream entrances, rivetment work and other construction. Upon going over the contract I found that, as had been reported to me, the State was not in possession of a channel or of perfect structures as shown upon the plans to be provided. At many points bars had formed by the sloughing off of embankment, where the material was of such a character as that it would not stand on the slope provided for in the contract, stream entrance protection work was washed away, and otherwise there was a condition which even a layman could see was unsatisfactory. I took the position that the State, having contracted for a prism of a certain length, together with its incidental structures, was entitled to receive from the contractor a prism and structures as shown upon the plans, and that instead of this there was a prism which was not only not of Barge canal dimensions, but that it was not even navigable for lesser craft than the Barge canal is planned to accommodate. I started a careful inquiry to determine wherein the fault lay, and not only from the State Engineer and Surveyor, but from members of the Advisory Board then in office, received specific assurance that the work had been done by the contractors in accordance with the plans, and that none of the work apparently necessary to be done in order to place the prism and other structures in a condition as shown upon the plans, could justly be required again of the contractor; and it was only after these specific assurances in writing that I consented to an acceptance of the work.

I mention this as a concrete and extreme case, to illustrate the point made earlier, that much of the work was placed under contract before an adequate study had been made of existing conditions. All who have studied this contract agree that a different treatment should have been applied, and that another contract must be let covering at least a portion of this section of canal, and the work done before a navigable canal shall be secured. I wish it understood that I do not refer to this or other matters in a spirit of criticism of any individual or official who has had to do with this work, but only of the tendency shown to adopt wrong methods, at least at some points, in order to insure progress.

There are other contracts where, owing to the class of material, a similar condition though not so great in extent, in my judgment

is bound to prevail. Work has been too far progressed, perhaps, to make it wise to adopt different methods of treatment at this time, but because of the methods applied the cost of maintenance of the canal for the first few years after the same shall be placed in commission, will necessarily be greatly increased. It is because I believe the Legislature and the people are entitled to know of these conditions that I have thought it proper to present them at this time.

At the present time the total work which has been placed under contract, in dollars and cents, is \$74,728,486.09, exclusive of alterations, some of which increase the cost of the work, while others effect a decrease or saving. This includes \$1,985,945.60, covering contracts on the Cayuga and Seneca canal.

Of the contracts awarded up to the present time, the total of the work placed under contract up to January 4th last was \$74,413,879.86, the balance having been awarded since that date.

The total payments to contractors on account of the progress of work up to the end of the calendar year just past were \$36,827,278.60. Of this amount \$13,821,377.48 has been paid on account of estimates since January 1, 1911. I hand you herewith a tabulated statement giving the percentage of work done on each of the separate pieces of work under contract, up to December 1st last.

Pursuant to the provisions of statute, I have already furnished the Comptroller an estimate of the moneys which it will be necessary for your honorable body to appropriate during the present session of the Legislature, if the department is to discharge its full responsibility as to maintenance, operation and repair of the canals. Besides the office budget, the estimate includes appropriations for the fiscal year beginning October 1st next, for canal repairs, operating expenses and maintenance of the canals, the sum of \$800,000; and for emergency purposes the sum of \$125,000.

The task of maintaining structures on the canal in a proper condition of repair has been rendered the more difficult by reason of Barge canal construction work, it being made necessary to maintain a larger force of watchmen at special points. The rate of wages paid to locktenders, bridgetenders and general section forces, has not been readjusted for many years. The result is that the rates paid at the present time are much less than are paid

to those performing similar services outside of this department. The time is not far distant when the matter of wages must be entirely readjusted.

There is another contingency which soon must be met. Certain portions of the Barge canal have been completed, and certain others soon will be completed, which form no part of the present canal and which may not be placed in commission until the completion of the whole work. Any maintenance cost of such structure is not deemed to be a proper charge against the funds appropriated for the maintenance, repair and operation of the canals now in commission, nor can such be considered a proper charge against construction account. It will be necessary, therefore, that a small appropriation be had applicable to the maintenance of structures forming a part of the new canal which have been completed, or which soon will be completed, but which are not yet in commission. The amount of such appropriation cannot be determined at this time, but will be furnished later, so that an item looking to an appropriation for this purpose may be included in the Supply Bill in case this recommendation shall meet with your favor.

In closing this report I feel it proper to acknowledge the hearty co-operation of the State Engineer and Surveyor and his subordinates, as well as that of the subordinates in this department, whose intelligent assistance and fidelity to duty and to the State's interests have contributed to such measure of success as has attended my administration of the affairs of this department.

Respectfully submitted,

CHARLES E. TREMAN,  
*Superintendent of Public Works.*

Statement of all Expenditures Made by the Superintendent of Public Works, for the Operation, Maintenance and Repairs of the Canals, the Extraordinary Repairs of Mechanical and Other Structures, and Other Work and Expenses Provided for by Special Acts of the Legislature; also on Account of the "Barge Canal."

### ORDINARY REPAIR FUND.

For locktending and ordinary repairs of the canals (see Statement No. 1).....	\$781,726 04
For administrative expenses (see Statement No. 2).....	48,317 39
For expenses of collectors and compilers of statistics (see Statement No. 3) .....	14,381 99
For office expenses of the Superintendent of Public Works and three Assistant Superintendents of Public Works (see Statement No. 4) .....	35,364 89
	<hr/>
	\$879,790 31

### EXTRAORDINARY REPAIR FUND.

For repairs and improvements of existing mechanical and other structures and works on and connected with the canals of the State:	
Chapter 533, Laws of 1910 (see Statement No. 5).....	\$94,045 46
Chapter 485, Laws of 1911 (see Statement No. 6).....	10,750 87
	<hr/>
	104,796 33

### SPECIAL APPROPRIATIONS.

Expended for various purposes (see Statement No. 7) .....	126,768 76
---	------------



“BARGE CANAL ACT.”

Expended as shown on Statement No. 8. . . . . \$13,411,941 60

BARGE CANAL IMPROVEMENT — CAYUGA AND  
SENECA CANAL.

Expended as shown on Statement No. 9. . . . . 470,527 08

---

\$14,993,824 08

---

*A statement of the appropriations for the operation and repairs and extraordinary repairs of the canals, salaries and traveling expenses of the Superintendent, deputy, three assistant superintendents, clerk hire and office expenses, salaries of section superintendents and collectors and compilers of statistics and inspectors.*

YEAR.	Locktending and ordinary repairs.	Repair and improvement of existing mechanical and other structures.	Salaries and office expenses.	Salaries of section superintendents.	Salaries of collectors and inspectors and incidental expenses.	Reconstruction of the embankments, slope wall and repair of other damages by flood.	Total.
1900.....	\$870,000 00	\$350,000 00	\$54,064 00	\$28,400 00	\$25,000 00	.....	\$1,327,464 00
1901.....	820,000 00	325,000 00	54,844 00	28,400 00	22,400 00	.....	1,250,744 00
1902.....	820,000 00	330,000 00	56,844 00	28,400 00	17,500 00	.....	1,173,144 00
1903.....	820,000 00	275,000 00	56,844 00	28,400 00	19,700 00	.....	1,200,044 00
1904.....	820,000 00	275,000 00	56,844 00	28,400 00	19,800 00	\$75,000 00	1,274,844 00
1905.....	790,000 00	260,000 00	53,644 00	27,500 00	19,900 00	.....	1,101,844 00
1906.....	775,000 00	190,000 00	53,644 00	27,500 00	15,763 00	.....	1,014,807 00
1907.....	775,000 00	125,000 00	52,544 00	26,000 00	17,263 00	.....	986,587 00
1908.....	800,000 00	125,000 00	57,019 00	26,000 00	17,263 00	.....	1,000,582 00
1909.....	800,000 00	125,000 00	56,344 00	26,000 00	17,463 00	.....	1,027,807 00
1910.....	800,000 00	125,000 00	56,344 00	26,000 00	17,463 00	.....	1,027,807 00
1911.....	800,000 00	125,000 00	61,144 00	26,000 00	17,663 00	.....	1,029,807 00
Total.....	\$9,675,000 00	\$2,450,000 00	\$676,623 00	\$327,000 00	\$230,578 00	\$75,000 00	\$13,434,201 00

## STATEMENT No. 1.

*Statement of expenditures, ordinary repairs from October 1, 1910, to January 4, 1911, under F. C. Stevens, Superintendent of Public Works.*

CANALS.	Sections.	By Superin- tendent of Public Works.	By Assistant Superintend- ents of Public Works.	By Superin- tendents of Canal Repairs.	Total each section.	Total.
Erie.....	1.....	.....	\$15,024 09	.....	\$15,024 09	
Erie.....	2.....	.....	5,325 30	\$45 00	5,370 30	
Erie.....	3.....	.....	3,322 37	32 00	3,354 37	
Erie.....	4.....	.....	1,718 99	.....	1,718 99	
Erie.....	5.....	.....	6,183 75	.....	10,075 06	
Erie.....	6.....	.....	9,030 50	3,891 31	14,274 77	
Erie.....	7.....	.....	2,051 46	5,244 27	5,164 83	
Erie.....	8.....	.....	4,254 54	3,113 37	10,833 48	
Erie.....	9.....	.....	6,138 72	6,578 94	12,467 69	
Erie.....	10.....	.....	6,039 02	6,328 97	14,622 57	
Erie.....	11.....	.....	12,310 78	8,583 55	18,352 10	\$111,258 25
Champlain.....	1.....	.....	\$1,967 70	\$4,986 23	\$6,953 93	
Champlain.....	2.....	.....	2,984 57	6,207 67	8,892 24	
Champlain.....	3.....	.....	4,232 34	3,340 42	7,574 76	23,420 93
Oswego.....	.....	.....	\$1,553 65	\$3,413 63	\$4,967 28	4,967 28
Cayuga and Seneca.....	.....	.....	\$4,274 40	\$2,942 98	\$7,217 08	
Black River.....	.....	.....	10,441 43	6,951 32	17,392 75	
Division expenses:	.....	.....	.....	.....	.....	
Eastern.....	.....	.....	\$12,007 30	.....	\$12,007 30	
Middle.....	.....	.....	13,742 31	.....	13,742 31	
Western.....	.....	.....	12,162 93	.....	12,162 93	37,912 54
General expenses:	.....	.....	.....	.....	.....	
Erie, general.....	.....	.....	.....	.....	.....	
Erie.....	1.....	\$2,390 40	.....	.....	\$2,390 40	
Erie.....	2.....	12,100 93	.....	.....	12,100 93	
Erie.....	3.....	6,350 59	.....	.....	6,350 59	
Erie.....	4.....	5,154 51	.....	.....	5,154 51	
Erie.....	.....	6,473 98	.....	.....	6,473 98	
Black River, general.....	.....	1,462 38	.....	.....	1,462 38	33,932 79
						\$236,101 62

*Statement of expenditures, ordinary repairs from January 5th to September 30, 1911, under Charles E. Treman, Superintendent of Public Works.*

CANALS.	Sections.	By Superintendant of Public Works.	By Assistant Superintendents of Public Works.	By Superintendents of Canal Repairs.	Total each section.	Total.
Erie.....	1.....	.....	\$8,621 15	\$35,466 25	\$44,087 40	
Erie.....	2.....	.....	8,365 90	21,009 43	29,375 33	
Erie.....	3.....	.....	4,334 08	15,638 29	19,972 37	
Erie.....	4.....	.....	5,319 51	19,445 41	24,764 92	
Erie.....	5.....	.....	5,463 76	13,078 18	18,541 94	
Erie.....	6.....	.....	11,247 56	15,978 19	27,225 75	
Erie.....	7.....	.....	1,274 46	9,442 73	10,717 19	
Erie.....	8.....	.....	6,483 25	21,441 18	27,924 43	
Erie.....	9.....	.....	19,075 89	27,246 40	46,322 29	
Erie.....	10.....	.....	14,988 06	24,317 40	39,305 46	
Erie.....	11.....	.....	23,630 86	19,974 59	43,605 45	\$331,842 53
Champlain.....	1.....	.....	\$3,492 85	\$15,809 67	\$19,302 52	
Champlain.....	2.....	.....	2,295 26	18,809 61	21,104 87	
Champlain.....	3.....	.....	2,705 41	13,539 22	16,244 63	56,652 02
Oswego.....	.....	.....	\$6,177 53	\$9,568 29	\$15,745 82	15,745 82
Cayuga and Seneca.....	.....	.....	\$947 63	\$8,005 02	\$8,952 65	8,952 65
Black River.....	.....	.....	\$8,706 10	\$21,293 25	\$29,999 35	29,999 35
Division expenses:	.....	.....	.....	.....	.....	
Eastern.....	.....	.....	\$31,037 05	.....	\$31,037 05	
Middle.....	.....	.....	28,491 15	.....	28,491 15	
Western.....	.....	.....	30,948 35	.....	30,948 35	90,476 55
General expenses:	.....	.....	.....	.....	.....	
Erie.....	.....	\$11,955 50	.....	.....	\$11,955 50	11,955 50
						\$545,624 42

## Statement of expenditures, ordinary repairs for fiscal year ended September 30, 1911.

CANAIS.	Sections.	By Superin- tendent of Public Works.	By Assistant Superintend- ents of Public Works.	By Superin- tendents of Canal Repairs.	Total each section.	Total each canal.
Erie.....	1.....	.....	\$23,645 24	\$35,466 25	\$59,111 49	
Erie.....	2.....	.....	12,691 26	21,054 43	34,745 69	
Erie.....	3.....	.....	7,656 45	19,676 29	27,332 74	
Erie.....	4.....	.....	11,847 51	16,945 41	28,792 92	
Erie.....	5.....	.....	26,278 06	21,222 48	47,500 54	
Erie.....	6.....	.....	3,325 92	12,556 12	15,882 02	
Erie.....	7.....	.....	38,020 12	28,020 12	66,040 24	
Erie.....	8.....	.....	20,214 61	33,575 37	53,789 98	
Erie.....	9.....	.....	21,027 08	32,900 95	53,928 03	
Erie.....	10.....	.....	36,941 64	26,015 91	62,957 55	\$443,100 78
Erie.....	11.....	.....	.....	.....	.....	
Champlain.....	1.....	.....	\$5,460 55	\$20,795 90	\$26,256 45	
Champlain.....	2.....	.....	4,979 83	25,017 28	29,997 11	
Champlain.....	3.....	.....	6,939 75	16,879 64	23,819 39	80,072 95
Oswego.....	.....	.....	.....	.....	.....	
Cayuga and Seneca.....	.....	.....	\$7,731 18	\$12,981 92	\$20,713 10	20,713 10
Black River.....	.....	.....	.....	.....	.....	
Black River.....	.....	.....	\$5,222 03	\$10,947 70	\$16,169 73	16,169 73
Division expenses:	.....	.....	.....	.....	.....	
Eastern.....	.....	.....	\$19,147 53	\$28,244 57	\$47,392 10	47,392 10
Middle.....	.....	.....	.....	.....	.....	
Western.....	.....	.....	.....	.....	.....	
General expenses:	.....	.....	.....	.....	.....	
Erie, general.....	.....	.....	\$43,044 35	.....	\$43,044 35	
Erie.....	.....	.....	42,233 46	.....	42,233 46	
Erie.....	.....	.....	43,111 28	.....	43,111 28	
Erie.....	.....	.....	.....	.....	.....	
Erie.....	.....	.....	.....	.....	.....	
Erie.....	.....	.....	.....	.....	.....	
Black River, general.....	.....	.....	.....	.....	.....	
Black River, general.....	.....	.....	\$14,345 90	.....	\$14,345 90	
Black River, general.....	.....	.....	12,100 93	.....	12,100 93	
Black River, general.....	.....	.....	6,350 59	.....	6,350 59	
Black River, general.....	.....	.....	5,154 51	.....	5,154 51	
Black River, general.....	.....	.....	6,473 98	.....	6,473 98	
Black River, general.....	.....	.....	1,462 38	.....	1,462 38	
Black River, general.....	.....	.....	.....	.....	.....	45,888 29
Black River, general.....	.....	.....	.....	.....	.....	\$781,726 04

*Statement of expenditures, for ordinary repairs and operating expenses on New York State canals by divisions for fiscal year ended September 30, 1911.*

	CANALS.	By Superintendents of Public Works.	By Assistant-Superintendents of Public Works.	By Superintendents of Canal Repairs.	Totals.
Eastern Division.....	Erie.....	.....	\$52,031 39	\$91,636 38	
Eastern Division.....	Champlain.....	.....	17,380 13	62,692 82	
Eastern Division.....	Division expenses.....	.....	43,044 35	.....	
			\$112,455 87	\$154,359 20	\$266,785 07
Middle Division.....	Erie.....	.....	\$35,251 49	\$50,748 05	
Middle Division.....	Oswego.....	.....	7,731 18	12,981 92	
Middle Division.....	Cayuga and Seneca.....	.....	5,222 03	10,947 70	
Middle Division.....	Black River.....	.....	19,147 53	28,244 57	
Middle Division.....	Division expenses.....	.....	42,233 46	.....	
			\$109,535 69	\$102,922 24	212,507 93
Western Division.....	Erie.....	.....	\$92,921 12	\$120,512 35	
Western Division.....	Division expenses.....	.....	43,111 28	.....	
			\$136,032 40	\$120,512 35	256,544 75
General expenses.....	Erie, general.....	\$14,345 90			
General expenses.....	Section No. 1, Erie.....	12,100 93			
General expenses.....	Section No. 2, Erie.....	6,350 59			
General expenses.....	Section No. 3, Erie.....	5,154 51			
General expenses.....	Section No. 4, Erie.....	6,473 98			
General expenses.....	Black River, general.....	1,462 38			
					45,888 29
					\$781,726 04

## STATEMENT No. 2.

*Statement of Administrative Expenses for Fiscal Year Ended September 30, 1911.*

F. C. Stevens, Superintendent of Public Works, salary and expenses .....	\$1,635 58
Charles E. Treman, Superintendent of Public Works, salary and expenses .....	4,964 44
Winslow M. Mead, Deputy Superintendent of Public Works, salary and expenses.....	5,993 45
David H. Lewis, Assistant Superintendent of Public Works, Eastern Division, salary and expenses.....	1,544 17
Walter G. Robinson, Assistant Superintendent of Public Works, Eastern Division, salary and expenses.....	1,931 02
Charles C. Barrett, Assistant Superintendent of Public Works, Middle Division, salary and expenses.....	1,234 62
Duncan W. Peck, Assistant Superintendent of Public Works, Middle Division, salary and expenses.....	2,148 19
Henry A. Kunze, Assistant Superintendent of Public Works, Western Division, salary and expenses.....	1,377 69
Charles McDonough, Assistant Superintendent of Public Works, Western Division, salary and expenses.....	2,251 96
Jacob M. Grass, Superintendent of Repairs, section 1, Erie....	250 00
Owen Kearney, Superintendent of Repairs, section 1, Erie.....	782 26
James Scanlon, Superintendent of Repairs, section 2, Erie.....	701 61
James T. Wasson, Superintendent of Repairs, section 2, Erie....	798 39
Oliver Hurst, Superintendent of Repairs, section 3, Erie.....	687 50
John J. Heston, Superintendent of Repairs, section 3, Erie....	187 50
Robert A. Probst, Superintendent of Repairs, section 3, Erie....	625 00
Charles Wallace, Superintendent of Repairs, section 4, Erie.....	661 29
John McGraw, Superintendent of Repairs, section 4, Erie.....	838 71
Daniel F. Breitenstein, Superintendent of Repairs, section 5, Erie	500 00
Joseph F. Burke, Superintendent of Repairs, section 5, Erie....	836 69
E. J. Clark, Superintendent of Repairs, section 6, Erie.....	580 36
William H. O'Brien, Superintendent of Repairs, section 6, Erie..	915 18
A. B. Hallett, Superintendent of Repairs, section 7, Erie.....	661 30
Charles E. Whitman, Superintendent of Repairs, section 7, Erie..	836 69
R. A. Vanderboget, Superintendent of Repairs, section 8, Erie..	701 61
Henry M. Littell, Superintendent of Repairs, section 9, Erie....	798 39
Jacob Allmeroth, Superintendent of Repairs, section 9, Erie....	593 75
Thomas J. Leddy, Superintendent of Repairs, section 9, Erie....	906 25
Charles L. Papworth, Superintendent of Repairs, section 10, Erie	661 29
D. Gurney Spalding, Superintendent of Repairs, section 10, Erie	712 50
William J. Hingston, Superintendent of Repairs, section 11, Erie	785 68
Edward H. Rogers, Superintendent of Repairs, section 11, Erie..	1,214 32
John Richmond, Superintendent of Repairs, section 1, Champlain	701 61
William H. Hickey, Superintendent of Repairs, section 1, Champlain .....	798 39
Patrick O'Grady, Superintendent of Repairs, section 2, Champlain .....	661 29

John Toole, Superintendent of Repairs, section 2, Champlain..	\$838 71
George Neddo, Superintendent of Repairs, section 3, Champlain	701 61
Evander M. Finch, Superintendent of Repairs, section 3, Champlain . . . . .	798 30
D. S. Burleigh, Superintendent of Repairs, Oswego canal.....	845 83
W. J. Hartnett, Superintendent of Repairs, Oswego canal.....	654 17
O. E. Emens, Superintendent of Repairs, Cayuga & Seneca canal	677 42
John Van Riper, Superintendent of Repairs, Cayuga & Seneca canal . . . . .	822 58
J. A. Fiske, Superintendent of Repairs, Black River canal.....	875 00
Charles Dorrity, Superintendent of Repairs, Black River canal	625 00
	<hr/>
	\$48,317 39

## STATEMENT No. 3.

*Statement of Expenses of the Statistician and Compilers of Statistics of the Tonnage of the Canals, for the Year Ended September 30, 1911.*

Statistician, salary . . . . .	\$2,400 00
Collectors, salaries . . . . .	6,417 04
Clerks, salaries . . . . .	4,669 11
Incidental expenses, stationery, office rent, coal, etc.....	895 84
	<hr/>
	\$14,381 99

## STATEMENT No. 5.

*Extraordinary repairs and improvements of existing mechanical and other structures and works on and connected with the canals of the State.*

(Chapter 533, Laws of 1910.)

Available balance January 1, 1911.....	\$94,045 46
--	-------------

## STATEMENT No. 4.

*Statement, clerk hire and office expenses of Superintendent of Public Works and Assistant Superintendents of Public Works, for the year ended September 30, 1911.*

Albany office . . . . .	\$22,836 01
Eastern division office.....	2,914 88
Middle division office.....	4,783 66
Western division office.....	4,830 34
	<hr/>
	\$35,364 89

*Detailed Statement of "Albany Office" Expenditures October 1, 1910, to October 1, 1911.*

Salaries and clerk hire.....	\$15,387 29
Special Agent . . . . .	1,300 00
Postage stamps and box rent.....	868 96
Telegraphing . . . . .	370 47
Telephone service . . . . .	1,408 55
Stationery and printing.....	2,180 68



Newspapers and directories.....	\$26 47
Expressage .....	226 50
Drinking water for office.....	33 50
Furniture and office fixtures.....	130 29
Leather bags .....	12 50
Legislative indexes .....	50 00
Typewriter and desk.....	107 78
Traveling expenses .....	207 02
Partition and painting, Financial Clerks' room.....	264 00
Pictures and framing.....	47 00
Typewriting machine, repairs.....	5 00
Newspaper clippings .....	180 00
Protectograph .....	30 00
	<hr/>
	\$22,836 01
	<hr/>

## ERIE CANAL — GENERAL.

October 1, 1910, to October 1, 1911.

Special agent, salary and expenses.....	\$375 00
Inspector, salary and expense.....	1,987 96
Paymaster, salary and expense.....	1,234 42
Operation and maintenance of State inspection boat.....	3,775 51
Publishing notices, opening and closing of canals.....	45 25
Operation and maintenance, Automobile.....	649 76
Exchange on two automobiles.....	5,000 00
Middle Division, inspection boat.....	1,200 00
Publishing notice, lumber contractor.....	78 00
	<hr/>
	\$14,345 90
	<hr/>

## BLACK RIVER CANAL — GENERAL.

October 1, 1910, to October 1, 1911.

Construction of telephone line from North Lake to Marshall Lake	\$1,462 38
	<hr/>

## EXPENDITURES OF THE YEAR 1911.

## Eastern Division.

## Dams, repairs of:

Section 3, Erie:	
Schoharie creek .....	\$828 20
	<hr/>
	\$828 20
	<hr/>
	\$828 20

## Locks, repairs of:

Section 1, Erie:	
Lock No. 4.....	\$65 88
Lock No. 13.....	220 25
Lock No. 15.....	76 80
Lock No. 2, Champlain.....	80 60
	<hr/>
	\$443 53

Section 2, Erie:		
Locks Nos. 23, 24, 25, 26, 27.....	\$374 75	
		\$374 75
Section 3, Erie:		
Lock No. 33.....	\$67 80	
		67 80
Section 4, Erie:		
Locks Nos. 35, 36, 39 and 40.....	\$448 25	
Lock No. 41.....	93 75	
Locks Nos. 44 and 45.....	203 75	
Lock No. 45.....	127 25	
		873 00
Section 1, Champlain:		
Lock No. 10.....	\$228 00	
		228 00
<i>Glens Falls feeder locks:</i>		
Section 2, Champlain:		
Lock No. 4.....	\$61 75	
Lock No. 5.....	72 00	
Lock No. 8.....	53 92	
Lock No. 13.....	140 50	
Building sluices around combined locks	1,903 76	
		2,231 93
Section 3, Champlain:		
Lock No. 18.....	\$283 08	
Lock No. 30.....	52 35	
Lock No. 34.....	20 25	
		355 68
		\$4,574 69
<i>Waste weirs and culverts, repairs of:</i>		
Section 2, Erie:		
Waste weir No. 7.....	\$106 25	
		\$106 25
Section 1, Champlain:		
Waste weir No. 7.....	\$98 20	
		98 20
Section 3, Champlain:		
Bailey's waste weir.....	\$83 53	
		83 53
		287 98
<i>Vertical and slope walls, repairs of:</i>		
Section 1, Erie:		
At Watervliet .....	\$3,291 34	
At lock No. 1, Champlain.....	230 13	
Between locks Nos. 7 and 8.....	3,854 89	
		\$7,376 36
Section 2, Erie:		
Between bridge No. 57 and N. Y. C. bridge .....	\$162 78	
Between bridges Nos. 61 and 62.....	419 25	
		582 03

## Section 4, Erie:

South of bridge No. 137.....	\$95 25	
South of bridge No. 156.....	852 75	
	<hr/>	\$948 00

## Section 2, Champlain:

North of bridge No. 96.....	\$178 29	
	<hr/>	178 29
		<hr/>
		\$9,084 68

*Bridges, repairs of:*

## Section 2, Erie:

Bridges Nos. 44 and 45.....	\$150 10	
Bridge No. 44.....	100 60	
	<hr/>	\$250 70

## Section 3, Erie:

Bridge No. 97.....	\$163 10	
	<hr/>	163 10

## Section 4, Erie:

Bridge No. 126.....	\$205 80	
Bridge No. 165.....	129 10	
	<hr/>	334 90

## Section 1, Champlain:

Bridge No. 28.....	\$190 00	
Bridge No. 45.....	128 00	
Bridge No. 56.....	205 40	
	<hr/>	523 40
		<hr/>
		1,272 10

*Aqueducts, repairs of:*

## Section 1, Erie:

Lower Mohawk .....	\$218 40	
	<hr/>	\$218 40
		<hr/>
		218 40

*Rip-rapping banks:*

## Section 2, Erie:

West of bridge No. 75.....	\$247 00	
	<hr/>	\$247 00

## Section 3, Erie:

East of aqueduct No. 7.....	\$147 25	
Between bridges Nos. 98 and 100....	187 55	
West of Schoharie creek aqueduct...	181 15	
	<hr/>	515 95

## Section 1, Champlain:

North of lock No. 9.....	\$171 39	
North of bridge No. 15.....	174 50	
	<hr/>	345 89

## Section 3, Champlain:

From Dunham's basin to Fort Ann..	\$334 75	
South of bridge No. 112.....	398 45	
	<hr/>	733 20
		<hr/>
		1,842 04

*Scraping and graveling towpath:*

## Section 1, Erie:

Between bridges Nos. 21 and 22.....	\$352 62	
Between bridges Nos. 15 and 16.....	486 25	
Through the "Sixteens".....	599 25	
West of lock No. 18.....	114 00	
	<hr/>	\$1,552 12

## Section 2, Erie:

Between D. & H. bridge and Union street bridge .....	\$480 00	
Between lower Mohawk aqueduct and lock No. 19.....	450 00	
From lock No. 19, east one-half mile..	358 50	
Between upper Mohawk aqueduct and bridge No. 54.....	287 50	
East of bridge No. 76.....	491 50	
Between bridges Nos. 63 and 69.....	473 75	
From lock No. 23 to General Electric Works .....	846 25	
	<hr/>	3,387 50

## Section 3, Erie:

Between aqueducts Nos. 7 and 8....	\$502 25	
Between bridges Nos. 95 and 96.....	75 20	
East of bridge No. 96.....	455 70	
West of bridge No. 106.....	480 85	
Lock No. 27 to Amsterdam.....	217 70	
Between locks Nos. 32 and 34.....	416 09	
East of lock No. 34.....	239 20	
	<hr/>	2,386 00

## Section 4, Erie:

Between locks Nos. 44 and 45.....	\$71 00	
West of lock No. 45.....	213 00	
Near bridge No. 168.....	34 14	
West of lock No. 36.....	469 75	
Between locks Nos. 39 and 40.....	195 25	
East of lock No. 41.....	34 14	
	<hr/>	1,017 28

## Section 1, Champlain:

Between lock No. 7 and bridge No. 22	\$780 75	
Between locks Nos. 5 and 6.....	212 50	
Between locks Nos. 6 and 8.....	325 50	
Between bridges Nos. 43 and 46.....	75 00	
Between bridges Nos. 49 and 62.....	236 39	
North of lock No. 9.....	124 92	
	<hr/>	1,755 06

## Section 2, Champlain:

Between Fort Edward and Dunham's Basin .....	\$288 00	
Between locks Nos. 13 and 14.....	499 50	

Between lock No. 11 and bridge No. 94	\$609 00	
Between bridges Nos. 90 and 91.....	324 50	
		\$1,721 00

## Section 3, Champlain:

Between Dunham's Basin and Fort Ann .....	\$264 10	
		264 10
		\$12,084 05

*Aqueducts and culverts, cleaning under:*

## Section 2, Erie:

Culvert No. 27.....	\$180 50	
Pattersonville aqueduct .....	402 50	
		\$583 00

## Section 3, Erie:

Culvert No. 27.....	\$94 50	
Culvert No. 61.....	96 00	
		190 50

## Section 4, Erie:

Culvert No. 70.....	\$170 00	
Culvert No. 75.....	320 13	
Culvert No. 78.....	195 00	
Ilion aqueduct .....	163 00	
		848 13
		1,621 63

*Bridge approaches, repairs of:*

## Section 1, Erie:

Bridges Nos. 16, 17 and 29.....	\$138 00	
Bridge No. 25.....	79 50	
Bridge No. 30.....	161 00	
Bridge No. 33.....	69 00	
		\$447 50

## Section 2, Erie:

Bridges between lower Mohawk aqueduct and Schenectady.....	\$240 75	
		240 75

## Section 3, Erie:

Many of the farm and highway bridges .....	\$196 30	
Fultonville bridge .....	238 75	
		435 05

## Section 4, Erie:

Bridge No. 148.....	\$38 00	
Bridge No. 149.....	54 00	
Bridges Nos. 161, 163, 164 and 165..	135 76	
Many of the farm and highway bridges .....	247 75	
		475 51
		1,598 81

*Docking and repairs of:*

## Section 1, Erie:

Between Watervliet and lock No. 18..	\$744 35	
	<hr/>	\$744 35

## Section 2, Erie:

Between lower Mohawk aqueduct and lock No. 21 .....	\$475 75	
Between lock No. 25 and bridge No. 70 .....	36 00	
	<hr/>	511 75

## Section 3, Erie:

West of aqueduct No. 6.....	\$86 40	
West of bridge No. 105.....	47 50	
West of bridge No. 106.....	95 00	
West of bridge No. 110.....	345 90	
	<hr/>	574 80

## Section 4, Erie:

Between bridge No. 134 and lock No. 36 .....	\$142 50	
	<hr/>	142 50

## Section 1, Champlain:

West of bridge No. 26.....	\$57 00	
West of bridge No. 37.....	38 00	
West of bridge No. 38.....	321 75	
East of bridge No. 45.....	97 75	
Between bridges Nos. 58 and 66.....	661 43	
	<hr/>	1,175 93

## Section 2, Champlain:

North of lock No. 11.....	\$185 25	
South of bridge No. 85.....	689 25	
Between locks Nos. 5 and 6.....	577 18	
North of bridge No. 77.....	185 00	
South of lock No. 14.....	98 50	
Between bridges Nos. 83 and 84.....	233 00	
Between bridges Nos. 91 and 93.....	236 25	
At bridge No. 84.....	84 50	
At bridge No. 95.....	79 00	
Lower end of lock No. 7.....	122 00	
	<hr/>	2,489 93

## Section 3, Champlain:

Whitehall .....	\$149 00	
	<hr/>	149 00
	<hr/>	\$5,788 26
		<hr/>
		\$39,200 84
		<hr/>

*Middle Division.*

## Section 5, Erie:

Building foot bridge east of culvert

No. 35 .....	\$161 81		
		\$161 81	
			\$161 81

*Towpath, repairs of:*

## Section 5, Erie:

Where needed on section for a distance of eight miles.....

\$405 50	\$405 50
----------	----------

*Cayuga and Seneca canal:*

Between Seneca Falls and mud lock.

\$30 00	30 00
---------	-------

435 50

*Black River canal:*

Eberts Bridge-Alder creek reservoir..

\$617 25	\$617 25
----------	----------

617 25

*Painting:*

## Section 5, Erie:

All bridges and other structures....

\$76 00	\$76 00
---------	---------

## Section 6, Erie:

All bridges and other structures....

\$386 75	386 75
----------	--------

462 75

*Strengthening tow-path bank:*

## Section 6, Erie:

East of Hedson's landing.....

\$2,038 58	\$2,038 58
------------	------------

2,038 58

*Ditching:*

## Cayuga and Seneca canal:

Montezuma level .....

\$10 00	\$10 00
---------	---------

## Section 5, Erie:

Between bridges Nos. 51 and 52....

\$126 00	126 00
----------	--------

## Section 6, Erie:

Liverpool village to Seneca river...

\$326 20	326 20
----------	--------

## Section 7, Erie:

At Shanty Point.....

\$172 50

At Jordan and Weedsport.....

256 00

At Port Byron.....

201 50

630 00

1,092 20

*Strengthening berme banks:*

Section 5, Erie.....	\$17 20	
Section 6, Erie.....	13 40	
	<hr/>	\$30 60

\$30 60

*Spillway, repairs of:*

Section 5, Erie:		
Oneida creek .....	\$38 71	
	<hr/>	\$38 71

69 31

*Locks, repairs of:*

Section 6, Erie:		
Lock No. 47.....	\$1,684 67	
Lock No. 48.....	115 00	
Lock No. 49.....	1,660 72	
Lock No. 50.....	603 71	
	<hr/>	\$4,064 10

*Oswego canal:*

Lock No. 1.....	\$568 89	
Lock No. 2.....	133 50	
Lock No. 3.....	109 60	
Lock No. 5.....	17 76	
Lock No. 14.....	249 36	
Baldwinsville Locks .....	1,025 83	
	<hr/>	2,104 94

6,169 04

*Rebuilding locks:*

Black River canal:		
Lock No. 3.....	\$306 73	
Lock No. 67.....	3,762 22	
	<hr/>	\$4,068 95

4,068 95

*Dredge fleet, repairs of:*

Tug "Wheeler," etc.....	\$2,180 32	
	<hr/>	\$2,180 32

2,180 32

*Bridges repairs of:*

Section 5, Erie:		
City of Utica:		
Schuyler street .....	\$356 05	
Washington street .....	340 57	
Hotel street .....	236 00	
Genesee street .....	458 17	
John street .....	350 96	
Broad street .....	67 67	
Whitesboro street .....	133 08	
	<hr/>	\$1,942 50



<i>Canastota:</i>		
Peterboro street .....	\$10 08	
Two highway bridges.....	246 25	
		\$256 33
Section 6, Erie:		
<i>City of Syracuse:</i>		
North Salina street.....	\$1,152 84	
South Salina street.....	339 50	
West Genesee street.....	528 07	
Geddes street .....	83 55	
West street .....	181 72	
Clinton street .....	240 36	
State street .....	119 38	
Catherine street .....	245 97	
Willow street .....	107 98	
		2,999 37
Section 6, Erie:		
Jamesville reservoir .....	\$141 01	
Owasco lake .....	7 53	
		148 54
Section 7, Erie:		
Highway bridge No. 120.....	\$1,137 87	
		1,137 87
<i>Oswego canal:</i>		
Change bridge, Hinmanville.....	\$156 55	
		156 55
<i>Black River canal:</i>		
Randall, Macomber and Adams bridges .....	\$491 63	
		491 63
		\$7,132 79
<i>Enlarging machine shop, Syracuse:</i>		
Division . . . . .	\$3,177 86	
		\$3,177 86
		3,177 86
<i>Aqueduct, repairs of:</i>		
Section 6, Erie:		
Chittenango .....	\$798 29	
		\$798 29
		798 29
<i>Guard gates, repairs of:</i>		
Section 6, Erie:		
On 60-mile level.....	\$42 00	
		\$42 00
		42 00

*Northern reservoirs, repairs of:*

## Black River canal:

Sand Lake road.....	\$824 50		
Woodhull State house.....	95 00		
		<hr/>	
		\$919 50	
			<hr/>
			\$919 50

*Southern reservoirs, repairs of:*

## Sections 5 and 6, Erie:

Old Chenango, Madison and Leland pond and Kingsley brook, feeders..	\$372 50		
Erieville reservoir .....	514 35		
Bradley Brook reservoir.....	56 40		
DeRuyter reservoir .....	9 40		
		<hr/>	
		\$952 65	
			<hr/>
			952 65

*Oak Orchard lock, repairs of:*

Oswego canal .....	\$104 50		
		<hr/>	
		\$104 50	
			<hr/>
			104 50

*Graveling:*

## Section 5, Erie:

From Taft's farm bridge, one mile west .....	\$902 60		
		<hr/>	
		\$902 60	

## Section 6, Erie:

Between West street and West Gen- see street bridges.....	\$576 10		
		<hr/>	
		576 10	
			<hr/>
			1,478 70

*Culverts, repairs of:*

## Section 6, Erie:

Canaseraga .....	\$284 50		
		<hr/>	
		\$284 50	
			<hr/>
			284 50

*Chittenango feeder, repairs of:*

Section 6, Erie.....	\$207 95		
		<hr/>	
		\$207 95	
			<hr/>
			207 95

---



---

\$32,394 45
*Western Division.**Locks and culverts, repairs of:*

## Section 8, Erie:

Lock No. 53 .....	\$614 64		
Lock No. 54.....	204 58		
Lock No. 56 .....	437 02		
Lock No. 57 .....	595 25		
Locks Nos. 53, 54 and 56.....	341 70		
		<hr/>	
		\$2,193 19	

## Section 9, Erie:

Lock No. 62 . . . . .	\$151 26	
Lock No. 63 . . . . .	291 87	
Locks Nos. 63, 64 and 65 . . . . .	1,050 89	
Culvert No. 36 . . . . .	310 76	
	<hr/>	\$1,804 78

## Section 11, Erie:

Ship Lock . . . . .	\$988 63	
	<hr/>	988 63
		<hr/>
		\$4,986 60

*Vertical walls, repairs and protection of:*

## Section 11, Erie:

Between Potomac avenue and Bridge street . . . . .	\$4,007 13	
Between Commercial street and Erie street . . . . .	1,344 40	
	<hr/>	\$5,351 53
		<hr/>
		5,351 53

*Ditching:*

## Section 9, Erie:

East of Culvert No. 35 . . . . .	\$138 00	
East of Culvert No. 37 . . . . .	515 43	
East of Culvert No. 41 . . . . .	175 75	
West of Culvert No. 42 . . . . .	331 62	
West of Culvert No. 44 . . . . .	293 67	
East of Culvert No. 48 . . . . .	95 87	
West of Culvert No. 49 . . . . .	197 25	
West of Culvert No. 50 . . . . .	57 50	
East of Culvert No. 51 . . . . .	149 75	
East of Culvert No. 53 . . . . .	71 75	
Howard street, Rochester . . . . .	305 50	
Between Bridges Nos. 101 and 102 . . . . .	154 88	
	<hr/>	\$2,486 97
		<hr/>
		2,486 97

*Scraping and graveling towpath:*

## Section 8, Erie:

Where needed . . . . .	\$747 18	
	<hr/>	\$747 18

## Section 9, Erie:

Where needed . . . . .	\$1,702 79	
	<hr/>	1,702 79

## Section 10, Erie:

Where needed . . . . .	\$467 37	
	<hr/>	467 37

## Section 11, Erie:

State yard to Porter avenue bridge . . . . .	\$266 00	
Hudson street to Erie street . . . . .	246 00	
Massachusetts street to city line . . . . .	484 25	
	<hr/>	996 25
		<hr/>
		3,913 59

*Bridge approaches, repairs of:*

## Section 9, Erie:

Where needed .....	\$641 74		
	<hr/>	\$641 74	
			\$641 74

*Removing foot bridge at Charles street:*

Section 11, Erie .....	\$808 50		
	<hr/>	\$808 50	
			808 50

*Timber docks, repairing and building:*

## Section 8, Erie:

East Palmyra gravel pit.....	\$147 00		
	<hr/>	\$147 00	
			147 00

*Vertical walls, repairs of:*

## Section 11, Erie:

Between Erie street and Henry street.	\$3,410 50		
	<hr/>	\$3,410 50	
			3,410 50

*Cutting weeds:*

## Section 10, Erie:

On banks, Oak Orchard feeder in town of Alabama .....	\$209 50		
	<hr/>	\$209 50	
			209 50

*Culverts, cleaning out:*

## Section 9, Erie:

Culvert No. 41.....	\$81 75		
Culvert No. 42.....	200 12		
Culvert No. 51.....	26 00		
Culvert No. 53.....	186 37		
	<hr/>	\$494 24	
			494 24
			<hr/>
			\$22,450 17

## EXPENDITURES FROM THE EXTRAORDINARY REPAIR FUND BY DIVISIONS.

(Chapter 533, Laws of 1910.)

Eastern . . . . .	\$39,200 84
Middle . . . . .	32,394 45
Western . . . . .	22,450 17
	<hr/>
	\$94,045 46

## STATEMENT NO. 6.

*Extraordinary Repairs and Improvements of Existing Mechanical and Other Structures and Works on and connected with the Canals of the State.*

(Chapter 485, Laws of 1911.)

Appropriation. . . . .	\$125,000 00
------------------------	--------------

## EXPENDITURES OF THE YEAR 1911.

*Eastern Division.**Locks, Repairs of:*

## Section 2, Erie:

Lock No. 23.....	\$14 00	
		\$14 00

## Section 2, Champlain:

## Glens Falls, feeder:

Five combined locks .....	\$1,060 88	
		1,060 88
		\$1,074 88

*Rip-rapping banks:*

## Section 3, Erie:

## West of Schoharie

Aqueduct .....	\$113 60	
		\$113 60
		113 60

*Scraping and graveling towpath:*

## Section 2, Erie:

Lock No. 23 to General Electric Works	\$1,125 00	
		\$1,125 00

## Section 3, Erie:

East of lock No. 34.....	\$141 40	
		141 40

## Section 1, Champlain:

Between locks Nos. 5 and 6.....	\$32 50	
Between locks Nos. 6 and 8.....	48 75	
North of bridge No. 35.....	246 88	
North of bridge No. 48.....	41 00	
Between bridges Nos. 43 and 46.....	37 50	
Between bridges Nos. 49 and 62.....	209 50	
		616 13
		1,882 53

*Aqueducts and culverts, cleaning under:*

## Section 3, Erie:

Four arch culvert, Amsterdam.....	\$928 50	
		\$928 50
		928 50

*Docking:*

## Section 1, Erie:

Watervliet to lock No. 18.....	\$119 70	
		\$119 70

## Section 3, Erie:

West of bridge No. 105.....	\$45 80	
East and west of bridge No. 106....	119 60	
		165 40

## Section 1, Champlain:

North of bridge No. 37.....	\$38 50	
North of bridge No. 38.....	30 50	
		69 00
		354 10

*Aqueducts and waste weirs, repairs of:*

## Section 1, Erie:

Lower Mohawk aqueduct .....	\$313 50		
		\$313 50	
			\$313 50
			\$4,667 11

*Middle Division.**Bridges, repairs of:*

## Section 7, Erie:

Change bridge, Montezuma .....	\$10 90		
Highway bridge No. 120 .....	40 90		
		\$51 80	
			\$51 80

*Northern reservoirs, repairs of:*

## Black river canal:

South Lake road .....	\$452 50		
Sand Lake road .....	53 87		
Woodhull reservoir .....	76 97		
State House, North Lake .....	191 40		
		\$774 74	
			774 74

*Graveling towpath:*

## Section 5, Erie:

## Tafts Bridge to Stanwix

Bridge .....	\$826 20		
		\$826 20	
			826 20

*Southern reservoirs, repairs of:*

## Sections 5 and 6, Erie:

Erieville reservoir .....	\$556 76		
Madison reservoir .....	135 91		
Bradley Brook reservoir .....	27 86		
De Ruyter reservoir .....	15 00		
Chenango feeder .....	9 25		
		\$744 78	
			744 78

*Ditching:*

## Section 6, Erie:

Liverpool Level .....	\$248 60		
		\$248 60	

## Section 7, Erie:

At Shanty Point .....	\$62 25		
At Port Byron .....	87 00		
At Jordan and Weedsport .....	161 50		
		310 75	
			559 35

*Culverts, repairs of:*

## Section 6, Erie:

Canastota culvert .....	\$229 40		
		\$229 40	

<i>Black River canal.</i>			
Hall culvert .....	\$131 85		
Drop culvert, Northwestern.....	100 50		
Culvert at Westernville.....	80 70		
		\$313 05	
			\$542 45
<i>Chittenango feeder, repairs of:</i>			
Section 6, Erie.....	\$91 65		
		\$91 65	
			91 65
			\$3,590 97
<i>Ditching:                      Western Division.</i>			
Section 8, Erie:			
Between bridge No. 22 and lock No. 57.	\$94 34		
Between bridges Nos. 3 and 4.....	82 00		
Between bridges Nos. 21 and 22.....	60 00		
East of lock No. 54.....	50 37		
		\$286 71	
Section 9, Erie:			
Between bridges Nos. 101 and 102....	\$211 93		
Culverts Nos. 49 and 50.....	23 92		
Culvert No. 51.....	80 30		
Culvert No. 53.....	39 50		
		355 65	
			\$642 26
<i>Scraping and graveling towpath:</i>			
Section 8, Erie:			
Where needed .....	\$245 00		
		\$245 00	
Section 9, Erie:			
Where needed .....	\$20 00		
		20 00	
Section 10, Erie:			
Where needed .....	\$443 75		
		443 75	
			708 75
<i>Vertical walls, repairs of:</i>			
Section 11, Erie:			
Erie street to Henry street.....	\$900 83		
		\$900 83	
			900 83
<i>Culverts, cleaning out:</i>			
Section 9, Erie:			
Culvert No. 50.....	\$118 22		
Culvert No. 51.....	122 63		
		\$240 85	
			240 85
			\$2,492 79

## EXPENDITURES FROM THE EXTRAORDINARY REPAIR FUND BY DIVISIONS.

(Chapter 485, Laws of 1911.)

Eastern . . . . .	\$4,667 11
Middle . . . . .	3,590 97
Western . . . . .	2,492 79
	<hr/>
	\$10,750 87
	<hr/>

## SUMMARY OF AVAILABLE FUNDS AND EXPENDITURES FOR THE YEAR 1911, FROM THE EXTRAORDINARY REPAIR FUNDS.

*Funds.*

(Chapter 533, Laws of 1910.)

Unexpended balance January 1, 1911.....	\$94,045 46
(Chapter 485, Laws of 1911.)	
Appropriations . . . . .	125,000 00
	<hr/>
	\$219,045 46
	<hr/>

## EXPENDITURES BY SECTIONS AND DIVISIONS.

*Eastern Division.*

Section 1, Erie . . . . .	\$11,215 46
Section 2, Erie . . . . .	7,422 73
Section 3, Erie . . . . .	6,511 29
Section 4, Erie . . . . .	4,639 32
Section 1, Champlain . . . . .	4,811 61
Section 2, Champlain . . . . .	7,682 03
Section 3, Champlain . . . . .	1,585 51
	<hr/>
	\$43,867 95

*Middle Division.*

Division . . . . .	\$5,358 18
Section 5, Erie.....	5,601 56
Section 6, Erie.....	13,304 15
Section 7, Erie.....	2,130 42
Oswego Canal.....	2,365 99
Cayuga & Seneca Canal.....	40 00
Black River . . . . .	7,185 12
	<hr/>
	35,985 42

*Western Division.*

Section 8, Erie.....	\$3,619 08
Section 9, Erie.....	7,747 02
Section 10, Erie.....	1,120 62
Section 11, Erie.....	12,456 24
	<hr/>
	24,942 96
	<hr/>
	\$104,796 33
	<hr/>

Available balance January 1, 1912.....	\$114,249 13
	<hr/>



## STATEMENT NO. 7.

*Statement of Payments made by the Superintendent of Public Works under Legislative Acts, for the purpose therein stated, from January 1, 1911, to January 1, 1912.*

For the compensation of gate tenders of the State dams upon the Beaver and Moose rivers. (Chapters 512 and 810, Laws of 1910 and 1911.):		
Gate tenders. . . . .	\$1,100 00	
	<hr/>	\$1,100 00
For the improvement of the Black River canal and the repairs and reconstruction of structures thereof between its junction with the Erie canal in the city of Rome and the northerly boundary line in the village of Boonville. (Chapter 196, Laws of 1909.):		
By division superintendent.....	\$4,772 15	
	<hr/>	4,772 15
For the construction of a bridge over the Erie canal at Georgia street in the city of Buffalo. (Chapter 452, Laws of 1909.):		
Lupfer & Remick, contractor.....	\$1,855 70	
	<hr/>	1,855 70
Improvement of the Cayuga inlet in the city of Ithaca, and the repair and reconstruction of the bridges over the same. (Chapters 287, 356 and 811, Laws of 1908, 1910 and 1911.):		
By division superintendent.....	\$4,455 01	
Purchase of land.....	3,030 00	
	<hr/>	7,485 01
For the services and expenses of agent employed in defense of claims against the State on account of the canals. (Chapters 513 and 811, Laws of 1910 and 1911.):		
Matthew A. Heeran.....	\$4,474 34	
John T. Maher.....	8,876 71	
	<hr/>	13,351 05
For the operation, maintenance and repairs of the drawbridge, known as Drake's drawbridge, spanning Wappinger Creek in the village of New Hamburg, Dutchess county. (Chap-		

ters 512 and 810, Laws of 1910 and 1911.):		
Bridge tender. . . . .	\$400 00	
Expenses. . . . .	19 04	
	<hr/>	\$419 04
For the salaries and expenses of inspectors of steam vessels. (Chapters 512 and 810, Laws of 1910 and 1911.):		
Inspectors, salaries of. . . . .	\$6,000 00	
Traveling expenses. . . . .	1,184 73	
Stationery. . . . .	226 90	
	<hr/>	7,411 63
For installing the wires and other equipment requisite for lighting by electricity the lighthouse at the entrance of the channel on Lake Keuka at Penn Yan and for paying the cost of electricity for lighting and maintaining such lighthouse for the period of one year and for paying the storage on the lighthouse for 19½ months prior to the erection. (Chapter 513, Laws of 1910):		
Cost of electricity. . . . .	\$89 78	
	<hr/>	89 78
For the compensation of the tender and for the maintenance and operation of the drawbridge over Minisceongo creek, Rockland county. (Chapters 512, 810 and 811, Laws of 1910 and 1911):		
Tender. . . . .	\$600 00	
Expenses. . . . .	24 30	
E. S. Sickles for repairs. . . . .	145 03	
	<hr/>	769 33
For restoring the embankment of Moyer creek destroyed by flood and for the cleaning out of the bed of the creek in the village of Frankfort. (Chapter 513, Laws of 1910.):		
By division superintendent. . . . .	\$11 00	
	<hr/>	11 00
For the improvement of the Oriskany creek feeder in the town of Kirkland, Oneida county, by the construction of retaining wall and		

repair of the existing retaining wall. (Chapter 518, Laws of 1910.):		
By division superintendent.....	\$580 46	
	<hr/>	\$580 46
For construction of a stone or concrete bridge over the State feeder at Cedar street in the city of Oneida. (Chapter 519, Laws of 1910.):		
By division superintendent.....	\$24 10	
	<hr/>	24 10
For the repair and maintenance of the two State dams and the locks therein situated on State land on the Saranac river between Middle Saranac lake and Oseetah lake and making the waters there navigable and safe. (Chapters 513 and 811, Laws of 1910 and 1911.):		
By the superintendent.....	\$1,633 83	
By division superintendent.....	20 67	
	<hr/>	1,654 50
For rebuilding and extending the wall along Steele creek north of the Erie canal in the village of Ilion. (Chapter 513, Laws of 1910.):		
By division superintendent.....	\$262 00	
	<hr/>	262 00
For the construction of a lift or hoist bridge over the Erie canal on Seneca street, in the city of Utica. (Chapters 454 and 480, Laws of 1909 and 1911.):		
By division superintendent.....	\$59 36	
	<hr/>	59 36
Improvement of the Black River canal north of Boonville and for the repair of the structures thereof. (Chapter 806, Laws of 1911.)		
By division superintendent.....	\$10,674 25	
	<hr/>	10,674 25
For repairs to the State dams on the Saint Regis river between the villages of Brasher Falls and Winthrop. (Chapter 811, Laws of 1911.)		
By the superintendent.....	\$1,580 15	
	<hr/>	1,580 15

For the salary and necessary traveling expenses of an engineer to be employed by the Superintendent of Public Works to act in an advisory capacity. (Chapters 433, 480, 811, Laws of 1909 and 1911.)

Edward Hayes, Engineer.....	\$2,299 58	
	<hr/>	\$2,299 58

For repairing and reconstructing the dikes and repairing the banks of the Chemung river in the city of Elmira. (Chapter 262, Laws of 1911.):

By the superintendent.....	\$28,476 95	
	<hr/>	28,476 95

For reimbursing the Superintendent of Public Works for moneys expended by him in relieving flood conditions at Herkimer. (Chapter 811, Laws of 1911.):

By the superintendent.....	\$154 60	
	<hr/>	154 60

For the purpose of removing, opening up, breaking or destroying any ice gorges, packs or blockades of ice in the Hudson river at any point south of the State dam at Troy, whenever in his judgment the doing of such work shall be necessary for the prevention of or relief from floods upon and along the Hudson river as provided by section 40-A of the Navigation Law. (Chapter 513, Laws of 1910.)

By the superintendent.....	\$568 22	
	<hr/>	568 22

For the reconstruction of the central pier of the drawbridge over Minisceongo creek. (Chapter 513, Laws of 1910.)

Advertising.....	\$14 00	
E. S. Sickles, contractor.....	4,586 00	
	<hr/>	4,600 00

Construction of a new iron bridge with double driveways and sidewalks over the Erie canal at South Washington street, in the city of Rome. (Chapter 522, Laws of 1910.):

Advertising.....	\$36 00	
Henry Tosh and son, contractor.....	14,738 32	
Inspection .....	144 00	
	<hr/>	14,918 32

For the improvement and repairs of  
the Shinnecock and Peconic canal.  
(Chapter 811, Laws of 1911.)

By the superintendent.....	\$4,481 00	
	<hr/>	\$4,481 00

For the construction of a lift or hoist  
bridge over the Erie canal at  
Franklin street in the city of  
Syracuse. (Chapters 453 and 527,  
Laws of 1909 and 1910.):

Charles B. Foster, assignee, contractor	\$7,254 00	
Albert Gaffey, attorney.....	6,211 80	
Wheeling, Mold & Foundry Company.	70 20	
Inspection .....	766 00	
	<hr/>	14,302 00

For the improvement of the Weigh-  
lock building in the city of Syracuse  
to afford better protection to the  
State records kept therein. (Chap-  
ter 524, Laws of 1910):

Advertising .....	\$42 00	
	<hr/>	42 00

For the payment of John M. Shultz  
of Syracuse for work done in con-  
nection with the construction of a  
lift bridge over the Oswego canal  
at North Salina street, Syracuse,  
over and above the amount called  
for by his contract, but which was  
ordered to be done by the State  
Engineer and Surveyor and the  
Superintendent of Public Works.  
(Chapter 811, Laws of 1911.):

Paid John M. Shultz.....	\$1,163 83	
	<hr/>	1,163 83

For the purchase of land for a park  
surrounding the Sullivan Monument  
near the Newtown battlefield in  
Chemung county and for the recon-  
struction of said monument and a  
roadway thereto. (Chapter 889,  
Laws of 1911.):

By the Superintendent.....	\$15 00	
	<hr/>	15 00

For certain improvements in the  
channel and banks of the Mohawk  
river and West Canada creek made  
necessary by the building of the

Barge canal. (Chapter 132, Laws of 1911.)		
Advertising .....	\$68 00	
Lathrop, Shea & Henwood Co., contractors .....	1,755 00	
	<hr/>	\$1,823 00
Removing obstructions, gravel, sand, etc., from the bed of Wood creek from its source in the town of Argyle to where it empties into the Barge canal, north of Dunham's Basin, in Kingsbury, Washington county. (Chapter 836, Laws of 1911.)		
By the Superintendent.....	\$1,824 75	
	<hr/>	1,824 75
		<hr/> \$126,768 76

## STATEMENT NO. 8.

*Statement of Payments made by the Superintendent of Public Works from January 1, 1911 to January 1, 1912, under the "Barge Canal Act."*

(Chapter 147, Laws of 1903 and Amendatory Acts thereto.)

## Contract No. 1:

Empire Engineering Corporation, contractor...	\$729 00	
Recording appropriations of land.....	8 75	
	<hr/>	\$737 75

## Contract No. 2-E:

Union Trust Company of Rochester, N. Y., Attorney-in-Fact for Holler and Shepard, Contractor .....		
	\$57,267 00	
Extra or unspecified work (see Canal Board Proceedings, February 2 and June 28, August 30 and September 27, 1911).....		
	5,779 95	
	<hr/>	63,046 95

## Contract No. 4:

Empire Engineering Corporation, contractor, final account .....		
	\$101,430 76	
	<hr/>	101,430 76

## Contract No. 4-B:

E. J. Doyle & Co., contractor.....	\$1,179 00	
	<hr/>	1,179 00

## Contract No. 6:

Marie H. Maselli, executrix of F. A. Maselli, contractor .....		
	\$24,588 00	
Extra or unspecified work (see Canal Board Proceedings, September 27, 1911).....		
	743 94	
	<hr/>	25,331 94

## Contract No. 8:

Pittsburg-Eastern Co., contractor.....	\$44,694 00	
	<hr/>	44,694 00

# 70      REPORT OF SUPERINTENDENT OF PUBLIC WORKS.

## Contract No. 9:

Thomas Crimmins Contracting Co., contractor..	\$92,502 19	
Extra or unspecified work (see Canal Board		
Proceedings, August 21, 1911).....	104 17	
Recording appropriations .....	15 25	
	<hr/>	\$92,621 61

## Contract No. 10:

Chas. McDermott & Clifford Lewis, Jr. receivers		
for McDermott Contracting Co., contractor..	\$10,521 00	
	<hr/>	10,521 00

## Contract No. 10-A:

Advertising .....	\$415 60	
	<hr/>	415 60

## Contract No. 11:

National Commercial Bank of Albany, N. Y.,		
Attorney-in-Fact for Fort Orange Construc-		
tion Co., contractor.....	\$111,690 00	
Extra or unspecified work (see Canal Board		
Proceedings, December 27, 1910).....	75 00	
	<hr/>	111,765 00

## Contract No. 12:

James Stewart & Co., contractor.....	\$906,435 00	
Recording appropriations of land.....	16 25	
	<hr/>	906,451 25

## Contract No. 13:

Penn Bridge Co., contractor.....	\$3,312 00	
	<hr/>	3,312 00

## Contract No. 14:

Acme Engineering & Contracting Co., contractor.	\$323,127 00	
Crescent road construction.....	46,170 00	
Recording appropriations of land.....	14 95	
	<hr/>	369,311 95

## Contract No. 15:

National Commercial Bank of Albany, Attorney-		
in-Fact for Atlantic, Gulf & Pacific Co., con-		
tractor. ....	\$215,127 00	
Extra or unspecified work (see Canal Board		
Proceedings, August 30, 1911).....	140 70	
Recording appropriations of land.....	2 25	
	<hr/>	215,269 95

## Contract No. 17:

Alexander Murdoch, contractor.....	\$103,905 00	
Extra or unspecified work (see Canal Board		
Proceedings, November 1, 1911).....	227 32	
	<hr/>	104,132 32

## Contract No. 18:

Extra or unspecified work (see Canal Board		
Proceedings, December 29, 1910).....	\$717 28	
	<hr/>	717 28

Contract No. 19:

Great Lakes Construction Co., contractor.....	\$109,398 00	
Road "J," construction of.....	119 12	
Road "K," construction of.....	1,477 32	
Road "C," construction of.....	425 30	
Recording appropriations of land.....	21 00	
		\$111,446 74

Contract No. 20-A:

Houston Barnard, contractor.....	\$113,670 00	
Extra or unspecified work (see Canal Board Proceedings, November 16, 1911).....	200 00	
Recording appropriations of land.....	2 00	
		113,872 00

Contract No. 20-B:

S. Pearson & Son, Inc., contractor.....	\$187,263 00	
Recording appropriations of land.....	6 00	
		187,269 00

Contract No. 20-C:

American Pipe & Construction Co., contractor..	\$303,273 00	
Recording appropriations of land.....	11 40	
		303,284 40

Contract No. 20-D:

American Pipe & Construction Co., contractor..	\$72,162 00	
Recording appropriations of land.....	15 00	
		72,177 00

Contract No. 21:

Lane Brothers Co., contractor.....	\$293,445 00	
		293,445 00

Contract No. 22:

M. Fitzgerald, contractor.....	\$16,353 00	
Recording appropriations of land.....	11 50	
		16,364 50

Contract No. 23:

L. G. Snyder, Attorney-in-Fact for Millard & Lupton Co., contractor.....	\$434,061 00	
Recording appropriation .....	2 00	
		434,063 00

Contract No. 24:

J. D. Sherrill, contractor.....	\$1,296 00	
Advertising .....	189 45	
		1,485 45

Contract No. 25:

National Commercial Bank of Albany, N. Y., At- torney-in-Fact for the Atlantic, Gulf & Pacific Co., contractor .....	\$76,293 00	
Extra or unspecified work (see Canal Board Proceedings, December 29, 1910 and June 28, 1911) .....	774 80	
Recording appropriations of land.....	2 25	
		77,070 05



**Contract No. 26:**

Recording appropriations of land.....	\$1 00	
		\$1 00

**Contract No. 27-A:**

Union Trust Co. of Rochester, N. Y. Attorney-in-Fact, for Holler & Shepard, contractor.....	\$83,844 00	
Recording appropriations of land.....	75	
		\$83,844 75

**Contract No. 29:**

Maryland Dredging & Contracting Co., contractor	\$167,805 00	
Extra or unspecified work (see Canal Board Proceedings, November 16, 1911).....	5,534 94	
Recording appropriations of land.....	9 00	
		173,348 94

**Contract No. 30:**

Acme Engineering & Contracting Co., contractor.	\$565,722 00	
Recording appropriations of land.....	43 50	
		565,765 50

**Contract No. 31:**

Casey & Murray, contractor.....	\$150,507 00	
Extra or unspecified work (see Canal Board Proceedings, November 15, 1910).....	175 00	
		150,682 00

**Contract No. 33:**

Penn Bridge Co., contractor.....	\$141,354 00	
Extra or unspecified work, (see Canal Board Proceedings, August 30, November 1, and 28, 1911) .....	1,698 81	
		143,052 81

**Contract No. 35:**

Gilmour-Horton-Allen Co., contractor.....	\$86,832 00	
Eugene D. Flanigan, Attorney-in-Fact for Gilmour-Horton-Allen Co., contractor.....	54,846 00	
Extra or unspecified work (see Canal Board Proceedings, August 30, 1911).....	150 00	
		141,828 00

**Contract No. 36:**

J. S. Mundy, Attorney for J. D. Miller, contractor	\$15,795 00	
		15,795 00

**Contract No. 37:**

Henry P. Burgard, contractor.....	\$791,118 00	
Recording appropriations of land.....	28 00	
		791,146 00

**Contract No. 39:**

James Stewart & Co., contractor.....	\$64,764 00	
		64,764 00

**Contract No. 40:**

United Engineer & Contracting Co., contractor..	\$413,208 00	
Road "A," construction of.....	7,011 00	
Recording appropriations of land.....	1 00	
		420,220 00

Contract No. 41:		
Butler Brothers Construction Co., contractor,		
final account .....	\$27,876 00	
		\$27,876 00
Contract No. 42:		
Shanley-Morrissey, Inc., contractor.....	\$159,606 00	
Recording appropriations of land.....	21 00	
		159,627 00
Contract No. 43:		
The M. A. Talbott Co., contractor.....	\$90,441 00	
Recording appropriations of land.....	31 50	
		90,472 50
Contract No. 44:		
Scott Brothers, contractor.....	\$447,930 00	
Recording appropriations of land.....	18 00	
		447,948 00
Contract No. 46.		
Kinser Construction Co., contractor.....	\$273,654 00	
Recording appropriations of land.....	5 50	
		273,659 50
Contract No. 47.		
Crowell-Sherman-Stalter Co., contractor.....	\$61,164 00	
Recording appropriations of land.....	12 00	
		61,176 00
Contract No. 48.		
Crowell-Sherman-Stalter Co., contractor.....	\$205,749 00	
Extra or unspecified work (see Canal Board Pro-		
ceedings, November 28, 1911).....	2,179 00	
Recording appropriations of land.....	50 25	
Advertising .....	87 88	
		208,066 13
Contract No. 49.		
Bellew & Merritt Co., contractor.....	\$80,991 00	
Merritt Construction Co., " .....	75,420 00	
American Pipe & Construction Co., contractor..	35,766 00	
H. W. DeGraff, Attorney for American Pipe &		
Construction Co. ....	56,385 00	
Recording appropriations of land.....	4 50	
		248,566 50
Contract No. 50.		
Buffalo Dredging Co., contractor.....	\$110,772 00	
Recording appropriations of land.....	66 15	
		110,838 15
Contract No. 51.		
Geo. T. Cunningham, contractor.....	\$18,036 00	
Alto Construction Co., " .....	52,101 00	
Recording appropriations .....	15 75	
Advertising .....	87 88	
		70,240 63

## Contract No. 53.

Scott Brothers, contractor.....	\$24,265 52	
Extra or unspecified work (see Canal Board Proceedings, June 28, 1911).....	1,113 14	
Recording appropriations .....	1 00	
	<hr/>	\$25,379 66

## Contract No. 54.

Scott Brothers, contractor.....	\$2,592 00	
Hunkin-Conkey Construction Co., contractor....	40,707 00	
	<hr/>	43,299 00

## Contract No. 55.

Arthur McMullen, contractor.....	\$159,219 00	
Extra or unspecified work, (see Canal Board Proceedings, September 27, 1911).....	405 30	
Recording appropriations .....	75	
	<hr/>	159,625 05

## Contract No. 60.

Empire Engineering Corporation, contractor....	\$205,614 00	
Extra or unspecified work, (see Canal Board Proceedings, December 29, 1910, April 6, May 18, 1911) . . . . .	15,144 79	
	<hr/>	220,758 79

## Contract No. 61.

Cleveland & Sons Co., contractor.....	\$260,091 00	
	<hr/>	260,091 00

## Contract No. 62.

I. M. Ludington's Sons, Inc., contractor.....	\$511,756 00	
T. W. Barrelly, Attorney-in-Fact for I. M. Ludington's Sons, Inc.....	112,410 00	
Extra or unspecified work, (see Canal Board Proceedings, July 26, 1911).....	1,714 55	
Recording appropriations of land.....	334 50	
	<hr/>	626,415 05

## Contract No. 63.

H. S. Kerbaugh, Inc., contractor.....	\$582,525 00	
Extra or unspecified work (see Canal Board Proceedings, June 8 and 28, 1911).....	147,241 59	
Recording appropriations .....	4 00	
	<hr/>	729,770 59

## Contract No. 64.

Empire Engineering Corporation, contractor....	\$206,730 00	
Recording appropriations of land.....	31 75	
	<hr/>	206,761 75

## Contract No. 66.

Empire Engineering Corporation, contractor....	\$218,331 00	
Extra or unspecified work, (see Canal Board Proceedings September 21, 1911).....	224 37	
Recording appropriations of land.....	4 00	
	<hr/>	218,559 37

Contract No. 67.		
Larkin & Sangster, contractor.....	\$287,010 00	
Extra or unspecified work, (see Canal Board Proceedings, July 19 and August 30, 1911)....	7,543 34	
Recording appropriations of land.....	10 00	
		\$294,563 34
Contract No. 68.		
Shanley-Morrissey, Inc., contractor.....	\$169,398 00	
Extra or unspecified work, (see Canal Board Proceedings, November 16, 1911).....	1,645 01	
		171,043 01
Contract No. 69.		
I. A. Hodge & Co., Inc., contractor.....	\$75,708 00	
		75,708 00
Contract No. 70.		
Shanley-Morrissey, Inc., contractor.....	\$34,713 00	
		34,713 00
Contract No. 71.		
Shanley-Morrissey, Inc., contractor.....	\$379,395 00	
Extra or unspecified work, (see Canal Board Proceedings, December 29, 1910, and December 4, 1911) .....	4,345 48	
		383,740 48
Contract No. 72.		
Shanley-Morrissey, Inc., contractor.....	\$294,507 00	
		294,507 00
Contract No. 73.		
E. M. Graves, contractor.....	\$435,924 00	
Recording appropriations of land.....	16 50	
		435,940 50
Contract No. 76.		
The T. A. Gillespie Co., contractor.....	\$440,181 00	
Extra or unspecified work, (see Canal Board Proceedings, November 1, 1911).....	16 50	
Advertising . . . . .	87 88	
Recording appropriations of land.....	78 00	
		441,996 88
Contract No. 77.		
The T. A. Gillespie Co., contractor.....	\$548,244 00	
Extra or unspecified work, (see Canal Board Proceedings November 1, 1911) .....	365 50	
Advertising . . . . .	87 88	
Recording appropriations of land.....	74 25	
		548,771 63
Contract No. 78.		
Cunningham-Woodard Co., contractor.....	\$13,878 00	
Extra or unspecified work, (see Canal Board Proceedings, August 30, 1911).....	51 10	
Road construction .....	12,248 19	
Recording appropriations of land.....	2 00	
		26,179 29

Contract No. 79.		
Lupfer & Remick, contractor.....	\$25,839 00	
		\$25,839 00
Contract No. 80.		
Walter Bradley, contractor.....	\$53,307 00	
Advertising . . . . .	87 87	
Recording appropriations of land.....	75	
		53,395 02
Contract No. 82.		
The Groton Bridge Co., contractor.....	\$11,421 00	
		11,421 00
Contract No. 85.		
Lupfer & Remick, contractor.....	\$1,737 00	
Advertising . . . . .	331 95	
		2,068 95
Contract No. 86.		
Lathrop, Shea & Henwood Co., contractor.....	\$3,465 00	
Advertising . . . . .	227 40	
		3,692 40
Contract No. 87.		
Advertising . . . . .	\$337 15	
		337 15
Contract No. 88.		
Advertising . . . . .	\$416 85	
		416 85
Contract No. 90.		
D'Olier Engineering Co., contractor.....	\$6,687 00	
First National Bank of Philadelphia, Pa., At- torney-in-Fact for D'Olier Engineering Co....	109,728 00	
		116,415 00
Contract No. 91.		
Geo. McI. Holroyd, Attorney-in-Fact for Welles- Boughton Co., contractor.....	\$1,440 00	
The Holington Co., contractor.....	2,169 00	
Advertising . . . . .	87 87	
		3,696 87
Contract No. 104.		
Advertising . . . . .	\$212 95	
		212 95
"Contract for the construction of certain highways adjacent to 'Delta Reservoir,' Oneida County."		
Cunningham-Woodard Co., contractor.....	\$29,304 00	
Advertising . . . . .	45 00	
Recording appropriations of land.....	9 00	
		29,358 00

## General expenses:

Special agent engaged in the preparation of notices of appropriation of land to be served on, and serving the same on owners, filing in the offices of the clerks of the counties, where land is situated; also the preparation of, and execution of contracts and filing the labor bonds in the offices of the clerks of the counties in which the contract area is located; also the services of a photographer and photographic supplies in making photographs of buildings on land appropriated .....	\$5,503 45	
For construction of a cofferdam south of old bulkhead at Fulton, N. Y.....	7,635 04	
Strengthening canal banks at Bushnell's Basin..	16,560 79	
Expenses in obtaining the services of John W. Kenny, justice of the peace, to certify to papers in relation to Lower Mohawk aqueduct and Crescent Station road .....	12 60	
Paid watchman on, and for oil for temporary canal at Mindenville, Montgomery county....	1,692 00	
Repairs to Howland's Island bridge on site of Contract No. 5.....	41 35	
Paid patrolmen on Barge Canal Contracts Nos. 60, 61, 62, 63 and 67.....	10,037 80	
Watching canal and assisting boats at Lock No. 7, Contract No. 14, Barge canal.....	4,736 30	
Getting Oswego canal ready for navigation..	575 18	
Maintaining commissary department during repairs at Bushnell's Basin .....	10,142 00	
		\$56,936 61
		<hr/>
		\$13,411,941 60

## STATEMENT NO. 9.

*Statement of Payments Made by the Superintendent of Public Works, from January 1, 1911, to January 1, 1912, for the Improvement of the Cayuga and Seneca Canal.*

(Chapter 391, Laws of 1909.)

## Contract "A":

Scott Brothers, contractor.....	\$92,673 00	
Advertising . . . . .	87 87	
Recording appropriations of land.....	2 00	
		<hr/>
		\$92,762 87

## Contract "B":

Crowell-Sherman-Stalter Company, contractor....	\$377,406 00	
Advertising . . . . .	87 87	
Recording appropriations . . . . .	5 00	
	<hr/>	\$377,498 87

## Contract "H":

Advertising . . . . .	\$212 95	
	<hr/>	212 95

## General expenses:

Traveling expenses of the general inspector and engineer . . . . .	\$52 39	
	<hr/>	52 39
		<hr/>
		\$470,527 08
		<hr/>
		\$13,882,468 68
		<hr/>

## STATEMENT No. 16.

*Statement of moneys paid into the State Treasury by the Superintendent of Public Works from January 1, 1911, to January 1, 1912.*

Received from David H. Lewis, Assistant Superintendent, for privileges granted for cutting ice.

*Ice Privileges.*

C. H. Mullen . . . . .	\$6 25	
C. J. Hanley . . . . .	6 25	
H. C. Wicks . . . . .	12 50	
T. J. Mullen . . . . .	12 50	
W. N. Saur . . . . .	6 25	
E. H. Lowell . . . . .	15 00	
Albert Cole . . . . .	12 50	
Hanson Bros. . . . .	6 25	
R. O'Brien . . . . .	12 50	
C. E. Vanderwerker . . . . .	2 50	
O'Brien Bros. . . . .	12 50	
Wurz & Endres . . . . .	6 25	
Daniel Sullivan . . . . .	12 50	
William Shover . . . . .	12 50	
Retallick & McBain . . . . .	31 25	
Alfred Case, Jr. . . . .	12 50	
Nadler Bros. . . . .	6 25	
W. N. Carpenter Co. . . . .	6 25	
Oathout Ice and Coal Co. . . . .	31 25	
Henry M. Smith . . . . .	12 50	
D. Norton Ice Co. . . . .	395 00	
D. McCarthy & Son . . . . .	87 50	
John Christie . . . . .	1 25	
Leonard Doty . . . . .	2 50	
Oathout Ice and Coal Co. . . . .	25 00	
	<hr/>	\$747 50

Received from Duncan W. Peck, Assistant Superintendent, for privileges granted for cutting ice.

*Ice Privileges.*

Highland Ice Co. ....	\$75 00
M. C. & David Copeland .....	50 00
West End Brewing Co.....	25 00
Cornelius Guilfoil .....	10 00
W. J. Scheidelman.....	12 50
C. E. Maynard & Son.....	9 50
Debald & Vollick.....	35 00
Edward Kelley .....	6 25
John Muddell .....	25 00
Peter Williams .....	25 00

---

\$273 25

**Other Purposes.**

Central City Paving Co., for damages to bridge over Orville feeder on the Genesee turnpike east of Syracuse.....	\$36 40
Buffalo Gas Co., for plate glass at Lockport.....	134 00
Pinkerton Boiler Works, marine locomotive boiler.	100 00
Albert Kibbee, for old iron and rope.....	27 03
W. J. Dowdle, unloading two cars of lumber.....	25 60
Merritt Crim, for building in gravel pit, west of Lock 21 .....	20 00
Empire Engineering Corporation, for raising of and removing ladder dredge at South Greece, on site of Barge Canal Contract No. 60.....	437 93
M. M. Ginty, for old radiators taken from building at Lockport, condemned by the State.....	20 00
Clarence King, for old boiler taken from State Yard at Rochester.....	10 00
George S. Haswell, for boat "Inspector".....	1,500 00
New York, Ontario & Western Railway Co., ice privilege .....	200 00
Schenectady Contracting Co., for rental of State land, situated on herme side of the Erie canal, between Nott and Jefferson streets, in the city of Schenectady, from February 1, 1911, to February 1, 1912.....	300 00

---

2,810 96

Charles J. Davis, for ice and hen house, located on Parcel 2213, on site of Barge Canal Contract No. 14, as per bill of sale February 7, 1911.....	\$800 00
--	----------

---

800 00

Arthur McMullen, to reimburse the Superintendent of Public Works for expenditures made in repairing break in towing path at the junction of the Black River canal and north end of new canal, on Contract No. 55, at the railroad aqueduct .....	\$658 15
--	----------

---

658 15



James Munckton, permission to operate what is known at Clute's dry dock, about one mile from Dunsbach's Ferry, on Parcel No 2180, site of Barge Canal Contract No. 14.....	\$25 00	
		\$25 00
E. J. White, use of so-called Canton ice houses, located on Parcel No. 1963, on site of Barge Canal Contract No. 14, during season of 1911..	\$300 00	
		300 00
W. H. Bullock, for structure known as old store building, located at Dunsbach's Ferry, on Parcel 2065, on site of Barge Canal Contract No. 14..	\$75 00	
		75 00
W. H. Bullock, for barn and shed on Parcel No. 1963, on Barge Canal Contract No. 14, as per bill of sale April 11, 1911.....	\$20 00	
		20 00
George Lasher, use of land for farming purposes, Parcel 2355, site of Barge Canal Contract No. 14, as per permit April 15, 1911.....	\$50 00	
		50 00
Edward Shanahan, use of building and land, Parcel No. 966, on Barge Canal Contract No. 1, for year 1911, as per permit April 11, 1911.....	\$25 00	
		25 00
John Van Decar, use of land for farming purposes, Parcel 1982, Barge Canal Contract No. 14, as per permit dated April 11, 1911.....	\$10 00	
		10 00
James Munckton, for all buildings on Parcel 2180, Barge Canal Contract No. 14, as per bill of sale April 15, 1911.....	\$250 00	
		250 00
Frank Ives, use of land for farming purposes, Parcel No. 2354, Barge Canal Contract No. 14, as per permit April 15, 1911.....	\$50 00	
		50 00
Frank T. Pearse, for buildings on Parcels Nos. 2253 and 2358, Barge Canal Contract No. 14, as per bill of sale April 15, 1911.....	\$175 00	
		175 00
Frank T. Pearse, for use of land on Parcels Nos. 2253 and 2358, Barge Canal Contract No 14, as per permit April 15, 1911.....	\$75 00	
		75 00
James Munckton, for all buildings, except canal store heretofore sold, on Parcel No 2185, Barge Canal Contract No 14, together with use of land on said parcel, as per bill of sale and permit April 10, 1911.....	\$200 00	
		200 00

Charles J. Davis, for buildings on Parcel 2257, Barge Canal Contract No. 14, and use of land on said parcel, for farming purposes, as per bill of sale and permit April 20, 1911.....	\$230 00	
	<hr/>	\$230 00
H. V. Seeber, for 90 yds. of gravel taken from site of Barge Canal Contract No. 20-C.....	\$13 50	
	<hr/>	13 50
W. J. Young, for building on Parcel No. 2906, on site of Barge Canal Contract No. 37, as per bill of sale December 13, 1911.....	\$300 00	
	<hr/>	300 00
Wm. D. Brooks, for 450 cu. yds. spoil stone, taken from site of Barge Canal Contract No. 40, as per bill of sale July 29, 1911.....	\$45 00	
	<hr/>	45 00
Olena L. Maynard, for use of land for farming purposes, embraced in Parcels Nos. 2120 and 3321, on site of Barge Canal Contract No. 14, as per permit October 16, 1911.....	\$25 00	
	<hr/>	25 00
James Munckton, for old canal store building, located on Parcel No. 2185, on site of Barge Canal Contract No. 14, as per bill of sale March 6, 1911.....	\$100 00	
	<hr/>	100 00
W. H. Bullock, for barn located at Crescent, on Parcel No. 1972, on site of Barge Canal Contract No. 14.....	\$25 00	
	<hr/>	25 00
Beecher Wells, for house, barns, sheds and out-buildings located on Parcel No. 969, on site of Barge Canal Contract No. 1, as per bill of sale February 24, 1911.....	\$300 00	
	<hr/>	300 00
John Murray, for buildings located on Parcels Nos. 2269 and 2362, on site of Barge Canal Contract No. 14, as per bill of sale March 25, 1911.....	\$300 00	
	<hr/>	300 00
Chas. J. Davis, for building known as Rioux ice house, situated on Parcel 2209, on site of Barge Canal Contract No. 14, as per bill of sale March 20, 1911 .....	\$260 00	
	<hr/>	260 00
Chas. J. Davis, \$125.00 for buildings known as hotel, barn, hen house, ice house and shed, on Parcel No. 2069, on site of Barge Canal Contract No. 14, and barn on Parcel No. 2064, on site of Contract No. 14, and \$125.00 for use of		

# 82      REPORT OF SUPERINTENDENT OF PUBLIC WORKS.

cultivated lands on Parcels Nos. 2069 and 2064, on site of Barge Canal Contract No. 14, as per bill of sale March 29, 1911.....	\$250 00	
	<hr/>	\$250 00
W. H. Bullock, for small toll house, to be removed by him in connection with the removal of old store building on Parcel No. 2065, on site of Barge Canal Contract No. 14, as per bill of sale February 15, 1911.....	\$5 00	
	<hr/>	5 00
John J. Sunkes, for house located on Parcel No. 2113, on site of Barge Canal Contract No. 14, as per bill of sale April 5, 1911.....	\$25 00	
	<hr/>	25 00
John J. Sunkes, for use of land for farming pur- poses, Parcel No. 2113, on site of Barge Canal Contract No. 14, as per bill of sale April 5, 1911 .....	\$10 00	
	<hr/>	10 00
William H. Smith, for use of land for farming purposes on Parcel No. 2271, on site of Barge Canal Contract No. 14, for seasons 1911 and 1912, as per permit April 8, 1911.....	\$150 00	
	<hr/>	150 00
Smith Guyer, for buildings and use of land on Parcel No. 2213, on site of Barge Canal Contract No. 14, as per bill of sale and permit April 8, 1911 .....	\$100 00	
	<hr/>	100 00
W. H. Bullock for buildings on site of Barge Canal Contract No. 14, as follows: Old mill, from Parcel 1992; barn, from Parcel 2068; house, from Parcel 1963, as per bill of sale March 31, 1911 . . . . .	\$300 00	
	<hr/>	300 00
Chas. J. Davis, for buildings and use of land on Parcel No. 1962, on site of Barge Canal Contract No. 14, as per bill of sale April 10, 1911.....	\$150 00	
	<hr/>	150 00
Chas. J. Davis, for buildings and use of land on Parcel No. 2209, on site of Barge Canal Contract No. 14, as per bill of sale April 10, 1911.....	\$75 00	
	<hr/>	75 00
Chas. J. Davis, for buildings and use of land on Parcel No. 2068, on site of Barge Canal Contract No. 14, as per bill of sale April 11, 1911.....	\$150 00	
	<hr/>	150 00
Chas. J. Davis, for buildings located on Parcel No. 1085, on site of Barge Canal Contract No. 68, as per bill of sale April 11, 1911.....	\$175 00	
	<hr/>	175 00

Chas. J. Davis, for buildings and use of land on Parcel No. 2066, on site of Barge Canal Contract No 14, as per bill of sale April 11, 1911.....	\$170 00	
		\$170 00
Received for the use of land for farming purposes on the site of Barge Canal Contract No. 14, as per permits issued May 2, 1911, as follows:		
James Onderdonk, Parcels Nos. 2077, 2112.....		25 00
Geo. & Adam Freleigh, Parcels Nos. 1824, 2166.....		75 00
George Schreffer, Parcel No. 2161.....		55 00
Adam Van Vranken, Parcel No. 2356.....		200 00
Harriett R. Raleigh, Parcel No. 2115.....		30 00
O. F. Wager, Parcel No. 2162.....		75 00
Frederick Teagel, Parcel No. 2183.....		50 00
Brower Van Vranken, Parcel No. 2385.....		29 75
John Connors, Parcel No. 2156.....		15 00
Adrian Fellows, Parcel No. 2365.....		112 00
Lewis L. Fellows, Parcel No. 2360.....		105 00
George Lasher, Parcel No. 2366.....		75 00
Wm. L. Burger, Parcels Nos. 2159, 2164.....		51 00
Mark Male, Parcels Nos. 2546, 2544.....		100 00
Charles Orlopp, Parcels Nos. 1936, 1937, 2537, 2542.....		200 00
Chas. J. Davis, Parcel No. 2121.....		15 00
Sylvester McIntosh, Parcel No. 2358.....		36 00
W. H. Van Vranken, Parcel No. 2363.....		100 50
F. W. Buhrmaster, Parcels Nos. 2155, 2167.....		150 00
Aaron Pearse, Parcels Nos. 2021, 2067.....		100 00
Wm. T. Ford, Parcel No. 2212.....		21 00
Clarence Schermerhorn, Parcel No. 2062.....		36 00
Francis Creiger, Parcels Nos. 2022, 2023, 2057, 2070.....		75 00
S. Barnt, for buildings on Parcels Nos. 1976 and 1964, on Barge Canal Contract No. 14, as per bill of sale April 11, 1911.....	\$60 00	
		60 00
Thomas H. Lane, for old barn Parcel No. 2113, Barge Canal Contract No. 14, as per bill of sale May 4, 1911.....	\$10 00	
		10 00
Chas. J. Davis, for buildings and use of land on Parcel 2074, Barge Canal Contract No. 14, as per bill of sale May 4, 1911.....	\$200 00	
		200 00
James Munkton, for old school house on Parcel No. 2210, Barge Canal Contract No. 14, as per bill of sale May 4, 1911.....	\$15 00	
		15 00
Charles Higgins, for privilege of cutting cooper's flag on Barge Canal Contract No. 46.....	\$25 00	
		25 00

Andrew Chase, for building known as Pettit house, on Parcel 119, on site of Barge Canal Contract No. 3, and building known as Hatch house, on Parcel 126, on site of Barge Canal Contract No. 3, as per bill of sale May 9, 1911.....	\$150 00	
	<hr/>	\$150 00
Thomas W. Winne, for use of land for farming purposes on Parcels Nos. 1938 and 1940, on site of Barge Canal Contract No. 14, as per permit May 2, 1911.....	\$20 00	
	<hr/>	20 00
H. A. Kipp, for use of land for farming purposes on Parcel No. 1085-A, on site of Barge Canal Contract No. 68, as per permit May 15, 1911....	\$10 00	
	<hr/>	10 00
Chas. H. Tribley, for use of land for farming purposes on Parcel No. 2168, on site of Barge Canal Contract No. 14, as per permit May 2, 1911	\$50 00	
	<hr/>	50 00
Alice H. Chase, for building known as Guy house on Parcel No. 127, on site of Barge Canal Contract No. 3, as per bill of sale May 9, 1911..	\$125 00	
	<hr/>	125 00
P. Henry Oliver, for use of land for farming pur- poses on Parcels Nos. 2075 and 2076, on site of Barge Canal Contract No. 14, as per permit May 2, 1911 .....	\$25 00	
	<hr/>	25 00
J. H. Godfrey, for use of land for farming purposes on Parcel No. 2650, on site of Barge Canal Con- tract No. 14, as per permit May 2, 1911.....	\$10 00	
	<hr/>	10 00
Margaret Wands, for use of land for farming pur- poses on Parcel No. 2080, on site of Barge Canal Contract No. 14, as per permit June 8, 1911.....	\$3 00	
	<hr/>	3 00
Augustus Boziack, for use of land for farming pur- poses on Parcel No. 2208, on site of Barge Canal Contract No. 14, as per permit June 26, 1911....	\$15 00	
	<hr/>	15 00
Benson Brick Co., for use of land for farming pur- poses on Parcel No. 1736, on site of Barge Canal Contract No. 14, as per permit June 30, 1911....	\$10 00	
	<hr/>	10 00
Beecher Wells, for use of land for farming purposes on Parcel No. 2650, on site of Barge Canal Con- tract No. 1, as per permit June 29, 1911.....	\$20 00	
	<hr/>	20 00

Beecher Wells, for use of land for farming purposes on Parcel No. 969, on site of Barge Canal Contract No. 1, as per permit July 24, 1911.....	\$40 00	
	<hr/>	\$40 00
John Campbell, for use of land for farming purposes on Parcel No. 288, on site of Barge Canal Contract No. 8, as per permit August 4, 1911....	\$55 00	
	<hr/>	55 00
Isaac Terry, for 200 cu. yds. sand taken from spoil bank at Whitehall, as per bill of sale July 2, 1910	\$30 00	
	<hr/>	30 00
E. B. McCarthy, for building located on Parcel No. 2909, on site of Barge Canal Contract No. 37, as per bill of sale July 31, 1911.....	\$125 00	
	<hr/>	125 00
Lawrence Shaughnessy, for use of land for farming purposes on Parcel No. 1325, on site of Barge Canal Contract No. 14, as per permit July 25, 1911 . . . . .	\$31 25	
	<hr/>	31 25
Theodore Marcoux, for use of land for farming purposes on Parcel No. 1681, on site of Barge Canal Contract No. 14, as per permit July 24, 1911....	\$25 00	
	<hr/>	25 00
William B. Huss, for two buildings located on Parcel No. 2136, on Barge Canal Contract No. 42, as per bill of sale. September 7, 1911.....	\$800 00	
	<hr/>	800 00
Charles E. Bulson, for privilege of using portions of Parcels Nos. 1076 and 1082, on Barge Canal Contract No. 68, for farming purposes, as per permit September 16, 1911.....	\$25 00	
	<hr/>	25 00
Peter Smith, for building on Parcels Nos. 1968 and 1981, on Barge Canal Contract No. 14, as per bill of sale September 12, 1911.....	\$90 00	
	<hr/>	90 00
J. D. Dewhurst, for Auert building, on Parcel No. 2142, on Barge Canal Contract No. 42, as per bill of sale September 15, 1911.....	\$300 00	
	<hr/>	300 00
Shaughnessy Ice Co., for ice houses located on Parcel No. 1963, on site of Barge Canal Contract No. 14, as per bill of sale September 20, 1911....	\$200 00	
	<hr/>	200 00
William D. Brooks, for 1330 cu. yds. of stone taken from site of Barge Canal Contract No. 40, as per bill of sale July 29, 1911.....	\$133 00	
	<hr/>	133 00

A. Page Smith, for building located on Parcel No. 2905, on site of Barge Canal Contract No. 37, as per bill of sale October 17, 1911.....	\$375 00	
		\$375 00
J. A. Traynor, for privilege of cutting hay on parcel of land appropriated for Barge Canal purposes near Cohoes, on site of Contract No. 14, as per letter August 29, 1911.....	\$15 00	
		15 00

*Fees received for filing liens, mortgages and making searches on canal boats.*

L. E. Remp .....	\$0 25
C. R. Sperry .....	1 25
H. Rosmow .....	26
Robert J. Fish .....	25
Frank K. Robinson .....	25
McKensie & Barr .....	50
Peter Dahl .....	1 00
William Ryan .....	26
George F. Thompson .....	25
Hawley Goodwith .....	25
William J. Warwick .....	2 50
Lockport Dry Docks .....	26
George B. Lawrence .....	1 00
Carriage Trust Company .....	25
Frank K. Robinson .....	50
Thomas O'Connor .....	25
Thomas O'Connor .....	25
Estate M. Doran .....	25
G. E. Treat .....	25
George W. Dunbar .....	1 50
Estate M. Doran .....	25
Thomas O'Connor .....	25
Estate M. Doran .....	25
Henry W. Watson .....	25
W. J. Warwick .....	25
W. J. Warwick .....	25
Thomas O'Connor .....	2 00
B. F. Guinan .....	50
Henry D. Merchant .....	25
Atwater & Cruikshanks .....	25
Alexander & Ash .....	25
Estate M. Doran .....	25
Estate M. Doran .....	25
Ryan Elevator Company .....	25
J. L. Robertson .....	25
Chris A. Murray .....	50
Harcourt & Bull .....	2 00
George Taylor .....	50
A. S. Annis .....	25

Peter S. Carter .....	\$0 50
S. C. Capron .....	25
James Stewart & Co.....	1 50
H. S. Wilson .....	25
A. S. Annis .....	25
John D. McMahon .....	25
Hubert Riley .....	1 00
W. J. Warwick .....	1 25
W. J. Warwick .....	25
George Taylor .....	25
Claude E. Guyle .....	50
Hubert Riley .....	1 25
Charles D. Phillips .....	25
Charles H. Blood .....	25
Estate M. Doran .....	1 00
Buckley, Marey & Capron .....	25
Estate M. Doran .....	25
Foley & Martin .....	50
Foley & Martin .....	25
William J. Warwick .....	25
A. S. Rockwood .....	25
Hood Coal Company .....	25
White & Stanley .....	75
H. F. Tanner .....	50
Ryan Elevator Company .....	75
James Muncton .....	25
H. F. Tanner .....	25
Hubert Riley .....	25
Nottingham & Nottingham .....	25
Frank H. Pryor .....	25
W. D. Sippell .....	25
Brown & Woolver .....	25
Mason & McNamara .....	1 00
W. D. Sippell.....	25
George D. Gillson .....	25
Thomas M. Ryan .....	25
George F. Thompson .....	50
Estate M. Doran .....	25
Harcourt Bull .....	50
Harcourt Bull .....	1 00
George Taylor .....	25
Carey Brothers .....	25
George F. Thompson .....	50
Frank K. Robinson .....	50
Hubbell, Taylor, Goodwin & Moser.....	50
B. W. Knowler .....	1 00
W. J. Warwick .....	25
John Marion .....	25
Brown, Ely & Richards .....	25
Peter S. Carter .....	25



William J. Warwick .....	\$0 25
George H. Driesback .....	25
Fred Brown .....	25
White & Stanley .....	2 75
George D. Gillson .....	25
Estate M. Doran .....	1 75
Estate M. Doran .....	50
Hubert Riley .....	25
C. L. Haines .....	25
Estate M. Doran .....	75
William Otts .....	25
Lockport Dry Docks .....	50
Frank R. Lennox .....	25
George Taylor .....	25
Frank E. Gallup .....	25
W. D. Sippell .....	25
Frank F. Robinson .....	25
George Taylor .....	25
Frank Pryor .....	25
Lockport Dry Docks .....	25
Estate M. Doran .....	25
John R. Parker .....	25
Estate M. Doran .....	25
Henry S. Kahn .....	75
Hubert Riley .....	75
Estate M. Doran .....	25
Estate M. Doran .....	25
Estate M. Doran .....	25
Wood Coal Company .....	25
Estate M. Doran .....	25
Estate M. Doran .....	50
William J. Warwick .....	1 00
Harrington & Hackett .....	25
Asa M. Williams .....	25
Estate M. Doran .....	25
Estate M. Doran .....	25
Estate M. Doran .....	50
Ira M. Rose .....	50
William J. Warwick .....	25
Estate M. Doran .....	50
Ira M. Rose .....	50
Estate M. Doran .....	25
Estate M. Doran .....	25
John V. Marion .....	75
Brown, Ely & Richardson .....	25
Treman Manufacturing Company .....	25
Horton & Terrill .....	25
Barton C. Meays .....	25
Mason & McNamara .....	25
Riordan Paper Company .....	25

Hubert Riley .....	\$0 50
Breman Mfg. Co.....	25
White & Babcock.....	25
John V. Marion.....	25
Henry P. Burgard Company.....	75
John J. Warner.....	25
H. F. Tanner.....	50
Hubert Riley .....	75
White and Stanley .....	4 25
Estate M. Doran.....	50
Estate M. Doran.....	25
W. P. Doran.....	25
Fiske and Lewis.....	25
S. E. Comstock.....	25
Webster Mead, Shaws and Raines.....	25
Webster Mead, Shaws and Raines.....	50
Estate M. Doran.....	75
Fiske and Lewis.....	25
George F. Thompson.....	25
John J. Warner.....	25
Welch and Parsons.....	25
Morey, Boshley and Morey.....	25
H. F. Tanner.....	1 00
Carey Brothers .....	25
William H. Nealer.....	25
H. Steenburg .....	25
S. C. Capron.....	25
M. Frank O'Rielly.....	25
Shire and Jellineks.....	25
N. Rosman .....	1 00
Lockport Dry Docks.....	25
George Taylor .....	25
Ira M. Rose.....	25
Reed and Shutt.....	25
W. H. Marcellus.....	26

---

 \$81 04

Interest 2% on daily balances in First National Bank, Albany, from January 16th to December 31, 1911. ....	<b>\$419 12</b>
--	-----------------

---

 419 12

From W. S. Van Keuren, inspector of steam vessels, fees collected for inspection of steam vessels, and issuing original and renewal licenses, pursuant to chapter 42, Laws of 1909:  
1911.

April. ....	\$221 00
May.....	578 00
June. ....	667 00
July. ....	783 00
August. ....	706 00

September . . . . .	\$549 50	
October. . . . .	211 50	
November. . . . .	164 00	
		<hr/>
		\$3,880 00
		<hr/>
		\$18,807 02
		<hr/>

*Statement of proposals received and contracts awarded by the Superintendent of Public Works during the year 1911, paid from funds provided for the ordinary repairs of the canals:*

(Chapter 512, Laws of 1910.)

For furnishing timber and plank for use on the Eastern Division:

H. V. Berry, Fort Plain, N. Y. . . . .	\$20,734 25
G. Elias & Brother, Buffalo, N. Y. . . . .	21,875 75

---

Awarded to H. V. Berry.

For furnishing timber and plank for use on the Middle Division:

G. Elias & Brother, Buffalo, N. Y. . . . .	\$16,840 50
Wm. J. Dowdle, Oswego, N. Y. . . . .	16,260 00

---

Awarded to Wm. J. Dowdle.

For furnishing timber and plan for use on the Western Division:

G. Elias & Brother, Buffalo, N. Y. . . . .	\$16,697 60
H. V. Berry, Fort Plain, N. Y. . . . .	17,209 00
Wm. J. Dowdle, Oswego, N. Y. . . . .	17,426 50
Smith, Fassett & Co., North Tonawanda, N. Y. . . . .	Informal

---

Awarded to G. Elias & Brother.

*Statement of proposals received and contracts awarded by the Superintendent of Public Works, during the year 1911, pursuant to special acts of the Legislature:*

For the construction of certain highways adjacent to the Delta reservoir, Oneida county, N. Y.:

(Chapter 13, Laws of 1909.)

Cunningham-Woodard Co., Hudson Falls, N. Y. . . . .	\$47,712 00
Theodore C. Hailes, Jr., Albany, N. Y. . . . .	40,834 00
James Anderson, Caledonia, N. Y. . . . .	51,037 00

---

No award.

For the reconstruction of the center pier (protection pier), of the draw-bridge over Minisceongo creek, Rockland county, N. Y.:

(Chapter 513, Laws of 1910.)

E. S. Sickles, New Baltimore, N. Y. . . . .	\$5,018 00
Theodore C. Hailes, Jr., Albany, N. Y. . . . .	5,745 00

---

The quantities having been revised and reduced, award was made to E. S. Sickles on basis of reduced quantities.

For the construction of certain highways adjacent to the Delta reservoir,  
Oneida county:

(Chapter 13, Laws of 1909.)

Cunningham-Woodard Co., Hudson Falls, N. Y.....	\$43,938 00
Henry Tosh & Son, Port Byron, N. Y.....	46,410 00

Awarded to Cunningham-Woodard Co.

For the improvement of the channel and banks of the Mohawk river and  
West Canada creek at Herkimer, N. Y.:

(Chapter 132, Laws of 1911.)

Lathrop, Shea & Henwood Co., Buffalo, N. Y.....	\$69,430 00
Benjamin F. Mulderry and Michael F. Dollard, Albany, N. Y.	83,000 00
Aetna Engineering & Contracting Co., Herkimer, N. Y.....	112,700 00

Awarded to Lathrop, Shea & Henwood Co.

For constructing and installing fire-proof filing vaults and for the improve-  
ment of the Weighlock Building in the city of Syracuse, N. Y.:

(Chapter 524, Laws of 1910.)

The O. M. Edwards Co., Syracuse, N. Y.....	\$9,231 50
Daniel B. O'Brien, Syracuse, N. Y.....	9,466 40
John Young, Syracuse, N. Y.....	11,221 40

Awarded to The O. M. Edwards Co.

*Statement of proposals received and contracts awarded by the Superintendent  
of Public Works, during the year 1911, pursuant to chapter 147, Laws of  
1903 and chapter 391, Laws of 1909, and amendments thereto, known as the  
"Barge Canal Act."*

Contract No. 87:

E. J. Doyle & Co., Albany, N. Y.....	\$10,284 00
M. Fitzgerald, Hoosick Falls, N. Y.....	11,243 00
Lupfer & Remick, Buffalo, N. Y.....	11,138 50
P. B. McCaghey Co., Little Falls, N. Y.....	10,766 00
Cunningham-Woodard Co., Hudson Falls, N. Y.....	10,962 00

No award.

Contract No. 86:

Lupfer & Remick, Buffalo, N. Y.....	\$44,902 00
Lathrop, Shea & Henwood Co., Buffalo, N. Y.....	43,440 00
W. J. Burns Co., Syracuse, N. Y.....	43,960 00
N. D. Peters Co., Utica, N. Y.....	43,663 20

Awarded to Lathrop, Shea & Henwood Co.

Contract No. 88:

Altro Construction Co., Troy, N. Y.....	\$21,788 00
Lathrop, Shea & Henwood Co., Buffalo, N. Y.....	24,832 25

No award.

Contract No. 85:

Lupfer & Remick, Buffalo, N. Y.....	\$13,238 50
Owego Bridge Co., Owego, N. Y.....	14,036 75
W. J. Burns Co., Syracuse, N. Y.....	13,880 90

Awarded to Lupfer & Remick.

## Contract No. 24:

James D. Sherrill, Hudson Falls, N. Y.....	\$44,368 00
N. D. Peters Co., Utica, N. Y.....	44,414 60
W. L. Bull, Jr., & Co., New York City.....	44,745 60
Lupfer & Remick, Buffalo, N. Y.....	47,967 40
Lathrop, Shea & Henwood Co., Buffalo, N. Y.....	47,337 00
Richard Hopkins, Troy, N. Y.....	46,874 60

Awarded to James D. Sherrill.

## Contract No. 88:

Lathrop, Shea & Henwood Co., Buffalo, N. Y.....	\$25,658 00
Lupfer & Remick, Buffalo, N. Y.....	26,993 60

Awarded to Lathrop, Shea & Henwood Co.

## Contract No. 14-R:

Thomas F. Riley, Troy, N. Y.....	\$723 60
----------------------------------	----------

Awarded.

## Contract No. 55-R:

Thomas F. Riley, Troy, N. Y.....	\$11,213 00
Hunter & McGilvray, Rome N. Y.....	7,574 60
The W. W. Dutton Co., Schenectady, N. Y.....	7,834 09
William F. Pillmore, Westernville, N. Y.....	8,988 60
John Young, Syracuse, N. Y.....	8,017 00
Clarence D. Smith, Rome, N. Y., R. F. D. No. 6.....	7,769 75
C. O. Stensrud, Superior, Wis.....	8,190 50
Joseph Kalk and Alfred S. Brown, Taberg, N. Y.....	7,409 53

Awarded to Joseph Kalk and Alfred S. Brown.

## Contract No. 10-A:

Frank L. Cohen, Buffalo, N. Y.....	\$107,755 00
Henry P. Burgard, Buffalo, N. Y.....	138,790 00
Lathrop, Shea & Henwood Co., Buffalo, N. Y.....	183,490 00
The T. A. Gillespie Co., New York City.....	106,738 00

Awarded to The T. A. Gillespie Co.

## Contract No. 104:

John Young, Syracuse, N. Y.....	\$39,972 50
L. B. Cleveland, Watertown, N. Y.....	49,490 00
Coughlin & Lowman, Watkins, N. Y.....	44,317 50
C. T. Hookway Construction Co., Syracuse, N. Y.....	40,970 00
Owego Bridge Co., Owego, N. Y.....	41,980 00
R. B. Murdock, Crown Point, N. Y.....	39,370 00

## Contract "H," Cayuga and Seneca Canal:

E. M. Graves, Cleveland, Ohio .....	\$220,034 00
James H. Dawes, Philadelphia, Pa.....	179,768 60
Crowell-Sherman-Stalter Co., Cleveland, Ohio.....	198,457 40

Awarded to James H. Dawes.

*Fees collected by the Inspector of Steam Vessels for the inspection of steam vessels and issuing of original and renewal licenses, pursuant to chapter 359, Laws 1905, from January 1, 1911, to January 1, 1912.*

For inspection of steamer "Horicon"	\$25 00
For inspection of steamer "Sagamore"	25 00
For inspection of steamer "Mohican"	25 00
For inspection of steamer "City of Syracuse"	25 00
For inspection of steamer "Glen Haven"	10 00
For inspection of steamer "Sagamore"	25 00
For inspection of steamer "Dick M."	5 00
For inspection of steamer "Red Wing"	5 00
For inspection of steamer "Minnie R."	5 00
For inspection of steamer "May Bee"	5 00
For inspection of steamer "Springsted"	25 00
For inspection of steamer "Gates"	25 00
For inspection of steamer "Penn Yan"	25 00
For inspection of steamer "Steuben"	25 00
For inspection of steamer "Pilgrim"	5 00
For inspection of steamer "Wallanick"	5 00
For inspection of steamer "Alert"	5 00
For inspection of steamer "Orlano"	10 00
For inspection of steamer "Onaewida"	25 00
For inspection of steamer "Ogarita"	25 00
For inspection of steamer "What Not"	7 50
For inspection of steamer "Comet"	5 00
For inspection of steamer "Nellie M."	5 00
For inspection of steamer "Ella H."	5 00
For inspection of steamer "Agnes"	10 00
For inspection of steamer "Cayuga"	7 50
For inspection of steamer "Kohanza"	5 00
For inspection of steamer "Hilda"	5 00
For inspection of steamer "Path Finder"	10 00
For inspection of steamer "Mohican"	12 50
For inspection of steamer "Wa-ta-wa"	5 00
For inspection of steamer "Polly"	5 00
For inspection of steamer "Deer Slayer"	10 00
For inspection of steamer "Vixen"	7 50
For inspection of steamer "Gipset"	5 00
For inspection of steamer "Arion"	5 00
For inspection of steamer "Canadargo"	5 00
For inspection of steamer "Lefty"	5 00
For inspection of steamer "Don"	5 00
For inspection of steamer "Robert"	5 00
For inspection of steamer "Lilly"	5 00
For inspection of steamer "May"	5 00
For inspection of steamer "Island Park"	7 50
For inspection of steamer "The Alano 2nd."	5 00
For inspection of steamer "Nymph"	7 50
For inspection of steamer "City of Auburn"	10 00

For inspection of steamer "Pactadero" .....	\$7 50
For inspection of steamer "Chic" .....	5 00
For inspection of steamer "Mizpah" .....	5 00
For inspection of steamer "Geneva" .....	5 00
For inspection of steamer "Colonial" .....	12 50
For inspection of steamer "Fontney" .....	10 00
For inspection of steamer "Kelso" .....	5 00
For inspection of steamer "Lotus" .....	7 50
For inspection of steamer "Nixie" .....	5 00
For inspection of steamer "Grace Muriel" .....	5 00
For inspection of steamer "Phoebe" .....	5 00
For inspection of steamer "Dana" .....	7 50
For inspection of steamer "Colonel Horton" .....	12 50
For inspection of steamer "Charles Kelley" .....	10 00
For inspection of steamer "Vernada" .....	5 00
For inspection of steamer "Hiawatha" .....	12 50
For inspection of steamer "Caprice" .....	5 00
For inspection of steamer "Augusta" .....	5 00
For inspection of steamer "Cayuga" .....	25 00
For inspection of steamer "Francis III" .....	5 00
For inspection of steamer "W. McMullen" .....	12 50
For inspection of steamer "May" .....	7 50
For inspection of steamer "C. H. Griffin" .....	10 00
For inspection of steamer "I. M. C." .....	5 00
For inspection of steamer "Scout" .....	5 00
For inspection of steamer "Montcalm" .....	5 00
For inspection of steamer "Wondor" .....	5 00
For inspection of steamer "Emporia" .....	5 00
For inspection of steamer "Daniel Boone" .....	5 00
For inspection of steamer "Echo" .....	5 00
For inspection of steamer "Kohango" .....	5 00
For inspection of steamer "Alta" .....	5 00
For inspection of steamer "Helen" .....	10 00
For inspection of steamer "Xpdney" .....	5 00
For inspection of steamer "Genda" .....	5 00
For inspection of steamer "Minnie" .....	5 00
For inspection of steamer "Aeolus" .....	5 00
For inspection of steamer "Lark" .....	5 00
For inspection of steamer "Fanny M." .....	5 00
For inspection of steamer "U-AU-TO-GO" .....	5 00
For inspection of steamer "Aneta" .....	5 00
For inspection of steamer "Idler" .....	5 00
For inspection of steamer "Idle Hour" .....	5 00
For inspection of steamer "May Flower" .....	5 00
For inspection of steamer "M. D. C." .....	5 00
For inspection of steamer "Mascot" .....	10 00
For inspection of steamer "Ruth" .....	10 00
For inspection of steamer "Rover" .....	10 00
For inspection of steamer "Sis" .....	5 00

For inspection of steamer "Nyanza" .....	\$5 00
For inspection of steamer "The Wood" .....	5 00
For inspection of steamer "Elizabeth" .....	5 00
For inspection of steamer "Iroquois" .....	5 00
For inspection of steamer "La Belle" .....	5 00
For inspection of steamer "Anona" .....	5 00
For inspection of steamer "Bernard" .....	5 00
For inspection of steamer "M. K. B." .....	5 00
For inspection of steamer "Arrow" .....	5 00
For inspection of steamer "Laura K." .....	5 00
For inspection of steamer "Mack" .....	5 00
For inspection of steamer "Marion" .....	5 00
For inspection of steamer "Irocossia" .....	7 50
For inspection of steamer "Cohasset" .....	5 00
For inspection of steamer "Aliska" .....	5 00
For inspection of steamer "Ileen" .....	5 00
For inspection of steamer "Perhaps" .....	5 00
For inspection of steamer "Ella" .....	5 00
For inspection of steamer "Moose" .....	5 00
For inspection of steamer "Geraldine" .....	5 00
For inspection of steamer "Bessie" .....	5 00
For inspection of steamer "Comet" .....	5 00
For inspection of steamer "Lark" .....	5 00
For inspection of steamer "Mayflower" .....	5 00
For inspection of steamer "Miami" .....	5 00
For inspection of steamer "Evelyn" .....	5 00
For inspection of steamer "Why Not" .....	5 00
For inspection of steamer "Meteor" .....	5 00
For inspection of steamer "Kroy" .....	5 00
For inspection of steamer "Edith" .....	5 00
For inspection of steamer "Henry" .....	5 00
For inspection of steamer "Minnie" .....	5 00
For inspection of steamer "Pirate" .....	5 00
For inspection of steamer "Ramona" .....	5 00
For inspection of steamer "Athol" .....	5 00
For inspection of steamer "Imperial" .....	5 00
For inspection of steamer "Sunbeam" .....	5 00
For inspection of steamer "E-Z" .....	5 00
For inspection of steamer "Goble House" .....	5 00
For inspection of steamer "Point View" .....	5 00
For inspection of steamer "Hist" .....	5 00
For inspection of steamer "City of Fulton" .....	12 50
For inspection of steamer "Arrow" .....	5 00
For inspection of steamer "Mae" .....	5 00
For inspection of steamer "Carrie May" .....	5 00
For inspection of steamer "Mizpah" .....	5 00
For inspection of steamer "East Shore" .....	5 00
For inspection of steamer "Niagara" .....	5 00
For inspection of steamer "Eleanor" .....	5 00



For inspection of steamer "Monitor" .....	\$5 00
For inspection of steamer "Bertha C." .....	5 00
For inspection of steamer "St. Charles" .....	7 50
For inspection of steamer "Lottie" .....	7 50
For inspection of steamer "Leona" .....	5 00
For inspection of steamer "Coronet" .....	5 00
For inspection of steamer "Helen" .....	7 50
For inspection of steamer "Livingston Inn" .....	7 50
For inspection of steamer "Margaret" .....	5 00
For inspection of steamer "Madeline" .....	5 00
For inspection of steamer "Iroquois" .....	5 00
For inspection of steamer "Lillie" .....	5 00
For inspection of steamer "Alice M." .....	7 50
For inspection of steamer "Rochester" .....	7 50
For inspection of steamer "H. T. Jaeger" .....	10 00
For inspection of steamer "J. A. Ritz" .....	10 00
For inspection of steamer "Osprey" .....	5 00
For inspection of steamer "Sylph" .....	5 00
For inspection of steamer "West Queen" .....	5 00
For inspection of steamer "Blue Bird" .....	5 00
For inspection of steamer "Westminster" .....	5 00
For inspection of steamer "Nyatt" .....	5 00
For inspection of steamer "Zara" .....	5 00
For inspection of steamer "Wanderer" .....	5 00
For inspection of steamer "Heron" .....	5 00
For inspection of steamer "Lois" .....	5 00
For inspection of steamer "Ethel" .....	5 00
For inspection of steamer "Mohawk" .....	12 50
For inspection of steamer "Stroller" .....	5 00
For inspection of steamer "P. W. McAnarny" .....	10 00
For inspection of steamer "Centerville" .....	5 00
For inspection of steamer "Nereus" .....	5 00
For inspection of steamer "Caroline" .....	5 00
For inspection of steamer "Pilot" .....	5 00
For inspection of steamer "Black Cat" .....	5 00
For inspection of steamer "Comanche" .....	5 00
For inspection of steamer "The Queen" .....	5 00
For inspection of steamer "G. E. Kipp" .....	5 00
For inspection of steamer "E. Lloyd" .....	5 00
For inspection of steamer "Nellie" .....	5 00
For inspection of steamer "Kitty West" .....	10 00
For inspection of steamer "Winonah" .....	5 00
For inspection of steamer "Martha" .....	5 00
For inspection of steamer "Beatrice" .....	5 00
For inspection of steamer "Flyer" .....	5 00
For inspection of steamer "Bogie" .....	5 00
For inspection of steamer "Alert" .....	5 00
For inspection of steamer "Sea Gull" .....	5 00
For inspection of steamer "Edith" .....	5 00

For inspection of steamer "Mercury" .....	\$5 00
For inspection of steamer "Silver Heels" .....	5 00
For inspection of steamer "Anna B." .....	5 00
For inspection of steamer "Mary Louise" .....	5 00
For inspection of steamer "Mary Lib" .....	5 00
For inspection of steamer "Ruth" .....	5 00
For inspection of steamer "Glen Lake" .....	5 00
For inspection of steamer "Ellie" .....	5 00
For inspection of steamer "Pampero" .....	5 00
For inspection of steamer "Eagle" .....	5 00
For inspection of steamer "White Cap" .....	5 00
For inspection of steamer "Marguerite" .....	5 00
For inspection of steamer "Onaway" .....	5 00
For inspection of steamer "Frolic" .....	5 00
For inspection of steamer "Hiawah" .....	5 00
For inspection of steamer "Marjorie" .....	5 00
For inspection of steamer "Jessie" .....	5 00
For inspection of steamer "Elph" .....	5 00
For inspection of steamer "Cleo" .....	7 50
For inspection of steamer "Elizabeth" .....	7 50
For inspection of steamer "Marion" .....	7 50
For inspection of steamer "Nellie" .....	5 00
For inspection of steamer "Scout" .....	5 00
For inspection of steamer "Calgpcse" .....	5 00
For inspection of steamer "Katrina" .....	7 50
For inspection of steamer "Loafer" .....	5 00
For inspection of steamer "Francis" .....	5 00
For inspection of steamer "Comanche" .....	5 00
For inspection of steamer "Maima" .....	5 00
For inspection of steamer "Gipsey" .....	5 00
For inspection of steamer "Cecelia" .....	5 00
For inspection of steamer "Byron 2nd" .....	5 00
For inspection of steamer "Mohawk" .....	5 00
For inspection of steamer "Uncas" .....	5 00
For inspection of steamer "Echo" .....	7 50
For inspection of steamer "Naomi" .....	5 00
For inspection of steamer "Topsey" .....	7 50
For inspection of steamer "Evelyn" .....	12 50
For inspection of steamer "Francena" .....	5 00
For inspection of steamer "Big Moose" .....	10 00
For inspection of steamer "Spray" .....	5 00
For inspection of steamer "Texas" .....	5 00
For inspection of steamer "Lake View" .....	5 00
For inspection of steamer "Oneta" .....	5 00
For inspection of steamer "Fox Hall" .....	5 00
For inspection of steamer "Mermaid" .....	5 00
For inspection of steamer "Oriole" .....	5 00
For inspection of steamer "Rasttes" .....	5 00
For inspection of steamer "Wanbeck" .....	5 00

For inspection of steamer "Loon" .....	\$10 00
For inspection of steamer "Saranac" .....	10 00
For inspection of steamer "Atlanta" .....	5 00
For inspection of steamer "Nyack" .....	5 00
For inspection of steamer "Evelyn" .....	5 00
For inspection of steamer "Arbutus" .....	5 00
For inspection of steamer "Lila" .....	5 00
For inspection of steamer "Iroquois" .....	5 00
For inspection of steamer "Kioaswind" .....	5 00
For inspection of steamer "Raven" .....	5 00
For inspection of steamer "Queen" .....	5 00
For inspection of steamer "Lorretta" .....	5 00
For inspection of steamer "Iola" .....	5 00
For inspection of steamer "Nestor" .....	5 00
For inspection of steamer "Agawan" .....	5 00
For inspection of steamer "Spray" .....	5 00
For inspection of steamer "Doris" .....	12 50
For inspection of steamer "Nereid" .....	5 00
For inspection of steamer "Teaser" .....	5 00
For inspection of steamer "Morningside" .....	7 50
For inspection of steamer "Lake Side" .....	5 00
For inspection of steamer "Adirondack" .....	5 00
For inspection of steamer "Osceola" .....	5 00
For inspection of steamer "Nyrtes" .....	5 00
For inspection of steamer "Virginia" .....	5 00
For inspection of steamer "Borneo" .....	5 00
For inspection of steamer "Buchanan" .....	5 00
For inspection of steamer "Rome" .....	5 00
For inspection of steamer "Italia" .....	5 00
For inspection of steamer "Prussia" .....	5 00
For inspection of steamer "McKinley" .....	5 00
For inspection of steamer "Don Quiote" .....	5 00
For inspection of steamer "St. Regis" .....	5 00
For inspection of steamer "Marconi" .....	5 00
For inspection of steamer "Maria" .....	5 00
For inspection of steamer "C. W. Lodge" .....	7 50
For inspection of steamer "Melba" .....	5 00
For inspection of steamer "Waterford" .....	10 00
For inspection of steamer "Waterford" .....	7 50
For inspection of steamer "A. Richardson" .....	7 50
For inspection of steamer "W. C. Baxter" .....	7 50
For inspection of steamer "Whitehall" .....	10 00
For inspection of steamer "Lillian" .....	7 50
For inspection of steamer "Ella" .....	5 00
For inspection of steamer "W. P. Dalton" .....	5 00
For inspection of steamer "Onnnex" .....	5 00
For inspection of steamer "Alice" .....	10 00
For inspection of steamer "Clearwater" .....	12 50
For inspection of steamer "Uncas" .....	10 00

For inspection of steamer "Mohegan" .....	\$7 50
For inspection of steamer "Nehasana" .....	12 50
For inspection of steamer "Myra" .....	5 00
For inspection of steamer "Kuiogesah" .....	10 00
For inspection of steamer "Lillian" .....	10 00
For inspection of steamer "Sacamon" .....	7 50
For inspection of steamer "Tuscarora" .....	12 50
For inspection of steamer "Oneonta" .....	7 50
For inspection of steamer "Adirondack" .....	10 00
For inspection of steamer "E. E. Jardin" .....	12 50
For inspection of steamer "Sylvia" .....	5 00
For inspection of steamer "M. P. Brown" .....	12 50
For inspection of steamer "W. B. Kirk" .....	12 50
For inspection of steamer "Linda" .....	5 00
For inspection of steamer "Susquehanna" .....	7 50
For inspection of steamer "C. N. White" .....	12 50
For inspection of steamer "City of Utica" .....	10 00
For inspection of steamer "Victor Adam" .....	10 00
For inspection of steamer "A. B. Tanner" .....	12 50
For inspection of steamer "D. Chapman" .....	12 50
For inspection of steamer "E. W. Tucker" .....	12 50
For inspection of steamer "C. M. Warner" .....	12 50
From A. B. West for renewal of license.....	3 00
From C. J. West for renewal of license.....	3 00
From Ed. Heagle for renewal of license.....	3 00
From W. H. Farmer for original license.....	5 00
From J. H. Sprague for renewal of license.....	3 00
From J. H. McConnell for renewal of license.....	3 00
From Andrew Heagh for renewal of license.....	3 00
From F. A. Rogers for renewal of license.....	3 00
From Charles Havens for original license.....	5 00
From Fred Shott for renewal of license.....	3 00
From E. J. Dunn for original license.....	5 00
From Arthur Kraft for renewal of license.....	3 00
From G. E. Foster for renewal of license.....	3 00
From F. D. Scott for renewal of license.....	3 00
From J. G. Harvey for renewal of license.....	3 00
From F. Martel for renewal of license.....	3 00
From A. J. Bogart for renewal of license.....	3 00
From E. L. Bellanger, for renewal of license.....	3 00
From C. S. Burleigh, for renewal of license.....	3 00
From F. W. Symonds, for renewal of license.....	3 00
From F. L. Clark, for renewal of license.....	3 00
From F. L. Clark, for renewal of license.....	3 00
From C. D. Brown, for original license.....	5 00
From J. E. Haywood, for renewal of license.....	3 00
From G. V. Devendorf, for renewal of license.....	3 00
From Thomas J. Hall, for renewal of license.....	3 00
From Frank Church, for renewal of license.....	3 00

From Wm. Dart, for renewal or license.....	\$3 00
From R. R. Parsell, for renewal of license.....	3 00
From B. F. Reno, for renewal of license.....	3 00
From F. H. Taylor, for renewal of license.....	3 00
From R. C. Burd, for renewal of license.....	3 00
From R. C. Burd, for renewal of license.....	3 00
From P. G. Zimmer, for renewal of license.....	3 00
From H. C. Morse, for original license.....	5 00
From J. E. Cornell, for original license.....	5 00
From Geo. Cornyna, for renewal of license.....	3 00
From W. L. Reed, for renewal of license.....	3 00
From E. M. Elton, for renewal of license.....	3 00
From Louis Sager, for renewal of license.....	3 00
From Wm. Greenin, for renewal of license.....	3 00
From John Perry, for renewal of license.....	3 00
From Thomas Kerr, for renewal of license.....	3 00
From H. R. Martin, for renewal of license.....	3 00
From Ray S. Lee, for renewal of license.....	3 00
From A. C. Lee, for renewal of license.....	3 00
From M. Conyene, for original license.....	5 00
From Carl Burger, for renewal of license.....	3 00
From Jas. Heffer, for renewal of license.....	3 00
From Jas. Hamilton, for renewal of license.....	3 00
From Jas. Hamilton, for renewal of license.....	3 00
From E. J. Green, for renewal of license.....	3 00
From J. A. Bishop, for renewal of license.....	3 00
From Geo. E. Tanner, for original license.....	5 00
From Louis Gilladet, for renewal of license.....	3 00
From Wm. Rhines, for renewal of license.....	3 00
From J. T. Graham, for renewal of license.....	3 00
From Geo. Strempele, for renewal of license.....	3 00
From M. F. Hoke, for renewal of license.....	3 00
From A. H. Gazeley, for renewal of license.....	3 00
From J. S. Gazeley, for renewal of license.....	3 00
From C. H. Mason, for renewal of license.....	3 00
From C. H. Mason, for renewal of license.....	3 00
From L. A. Mowers, for original license.....	5 00
From J. L. Angerenn, for renewal of license.....	3 00
From Ray Palmer, for renewal of license.....	3 00
From C. F. Heiland, for renewal of license.....	3 00
From W. W. West, for renewal of license.....	3 00
From L. H. Chappel, for renewal of license.....	3 00
From Morris Scheau, for renewal of license.....	3 00
From Frank Ladd, for renewal of license.....	3 00
From W. C. Shafer, for renewal of license.....	3 00
From B. Wool, for renewal of license.....	3 00
From M. J. Carmody, for renewal of license.....	3 00
From J. T. Ibbs, for renewal of license.....	3 00
From Bert Anthony, for renewal of license.....	3 00

From H. J. Burns, for renewal of license.....	\$3 00
From C. McGinigan, for renewal of license.....	3 00
From E. S. Gorinor, for renewal of license.....	3 00
From A. G. Tucker, for renewal of license.....	3 00
From F. S. Tower, for renewal of license.....	3 00
From D. Mickley, for renewal of license.....	3 00
From W. H. Welch, for renewal of license.....	3 00
From M. Muldoon, for original license.....	5 00
From M. Matthews, for original license.....	5 00
From L. Barber, for renewal of license.....	5 00
From G. E. Barber, for renewal of license.....	3 00
From J. L. Augerim, for original license.....	5 00
From O. A. Tilden, for renewal of license.....	3 00
From E. O. DeWitt, for renewal of license.....	3 00
From G. W. Finch, for original license.....	5 00
From Geo. MacHay, for original license.....	5 00
From F. W. Hamilton, for renewal of license.....	3 00
From L. L. Rosa, for renewal of license.....	3 00
From Wm. Jarvis, for renewal of license.....	3 00
From L. F. Bloom, for renewal of license.....	3 00
From G. Battell, for renewal of license.....	3 00
From Wm. Billings, for renewal of license.....	3 00
From C. E. Sykes, for renewal of license.....	3 00
From J. A. Dederick, for renewal of license.....	3 00
From M. E. Sperry, for renewal of license.....	3 00
From W. O. Stubbs, for renewal of license.....	3 00
From W. H. Laur, for renewal of license.....	3 00
From O. L. Brown, for renewal of license.....	3 00
From R. S. Watson, for original license.....	5 00
From J. E. Stroger, for renewal of license.....	3 00
From F. N. Howell, for renewal of license.....	3 00
From H. G. Sell, for original license.....	5 00
From C. W. Decker, for renewal of license.....	3 00
From E. C. Taylor, for original license.....	5 00
From Oscar Morse, for renewal of license.....	3 00
From B. C. Gordon, for original license.....	5 00
From W. B. Sheldon, for original license.....	5 00
From Clyde Heagle, for original license.....	5 00
From C. H. Drabel, for original license.....	5 00
From J. Daniel, for original license.....	5 00
From W. H. Van Wormer, for original license.....	5 00
From Frank Dobson, for original license.....	5 00
From R. D. Albertson, for original license.....	5 00
From E. O. Stickland, for renewal of license.....	3 00
From L. C. Durlee, for original license.....	5 00
From F. McLaughlin, for renewal of license.....	3 00
From H. L. Phelps, for original license.....	5 00
From Thomas Kurr, for renewal of license.....	3 00
From James Lawson, for original license.....	5 00

From James Pastore, for original license.....	\$5 00
From C. E. Sperry, for renewal of license.....	3 00
From C. E. Sperry, for renewal of license.....	3 00
From H. La Fountane, for renewal of license.....	3 00
From Wm. Hudson, for renewal of license.....	3 00
From W. E. Bissel, for original license.....	5 00
From W. E. Somers, for renewal of license.....	3 00
From G. E. La Fountane, for renewal of license.....	3 00
From H. L. Phelps, for renewal of license.....	3 00
From F. E. Howland, for renewal of license.....	3 00
From S. Howland, for original license.....	5 00
From John Howland, for renewal of license.....	3 00
From G. N. Haskins, for renewal of license.....	3 00
From W. A. Bean, for renewal of license.....	3 00
From A. L. Bissel, for original license.....	5 00
From E. C. Ford, for renewal of license.....	3 00
From C. B. Ford, for renewal of license.....	3 00
From W. J. Morrow, for renewal of license.....	3 00
From F. K. Morse, for original license.....	5 00
From Geo. Shamp, for renewal of license.....	3 00
From C. W. Grill, for renewal of license.....	3 00
From Byron Falls, for renewal of license.....	3 00
From Charles E. Leach, for original license.....	5 00
From Emerson Place, for renewal of license.....	3 00
From R. B. Mayes, for original license.....	5 00
From E. W. Dana, for original license.....	5 00
From Wm. Backus, for renewal of license.....	3 00
From D. Scanlon, for renewal of license.....	3 00
From E. C. Shepley, for renewal of license.....	3 00
From E. E. Taylor, for renewal of license.....	3 00
From H. A. Morse, for renewal of license.....	3 00
From W. R. Perry, for renewal of license.....	3 00
From C. F. Mandigo, for renewal of license.....	3 00
From R. V. Arno, for original license.....	5 00
From W. R. Walton, for original license.....	5 00
From M. F. May, for original license.....	5 00
From H. L. Hyde, for original license.....	5 00
From O. W. MacCabe, for renewal of license.....	3 00
From W. M. Brown, for renewal of license.....	3 00
From C. Swazey, for renewal of license.....	3 00
From M. A. Brush, for renewal of license.....	3 00
From F. R. Williams, for renewal of license.....	3 00
From James Bailey, for original license.....	5 00
From Ira J. Chase, for renewal of license.....	3 00
From C. P. Bayne, for renewal of license.....	3 00
From F. Williams, for renewal of license.....	3 00
From M. W. Wheeler, for renewal of license.....	3 00
From L. W. Wheeler, for renewal of license.....	3 00
From A. W. Stillman, for renewal of license.....	3 00

From W. W. Wheeler, for renewal of license.....	\$3 00
From L. W. Wheeler, for renewal of license.....	3 00
From Geo. S. Ellis, for renewal of license.....	3 00
From Geo. S. Ellis, for original license.....	5 00
From C. Swazey, for original license.....	5 00
From E. S. Van Orda, for renewal of license.....	3 00
From G. R. Lewis, for original license.....	5 00
From Elbert Wicke, for renewal of license.....	3 00
From Joseph Matler, for renewal of license.....	3 00
From Clarence Lee, for original license.....	5 00
From H. F. Bowman, for original license.....	5 00
From E. Gifford, for original license.....	5 00
From J. D. Shaper, for renewal of license.....	3 00
From M. Beyer, for renewal of license.....	3 00
From C. N. Wood, for renewal of license.....	3 00
From H. Hart, for renewal of license.....	3 00
From W. J. Burton, for renewal of license.....	3 00
From S. J. Borst, for renewal of license.....	3 00
From G. C. Burnch, for original license.....	5 00
From J. C. Barker, for renewal of license.....	3 00
From W. Rogers, for original license.....	5 00
From Ray Gaylord, for renewal of license.....	3 00
From E. Del March, for renewal of license.....	3 00
From W. F. Thomas, for original license.....	5 00
From P. V. Ernest, for renewal of license.....	3 00
From A. E. Rivett, for renewal of license.....	3 00
From James Goodwin, for renewal of license.....	3 00
From C. R. Murdock, for renewal of license.....	3 00
From Fred Trotter, for renewal of license.....	3 00
From F. E. Rivett, for original license.....	5 00
From E. L. Marks, for renewal of license.....	3 00
From F. H. Brown, for renewal of license.....	3 00
From C. J. Avery, for renewal of license.....	3 00
From Wm. Decker, for renewal of license.....	3 00
From H. Linforth, for renewal of license.....	3 00
From D. D. Douglas, for renewal of license.....	3 00
From J. B. Pelletier, for renewal of license.....	3 00
From Earl Plumley, for renewal of license.....	3 00
From Orvis Locke, for renewal of license.....	3 00
From Fred Jones, for original license.....	5 00
From Norton Bird, for original license.....	5 00
From E. J. Fowler, for renewal of license.....	3 00
From George Pashley, for renewal of license.....	3 00
From George E. Scarrett, for renewal of license.....	3 00
From G. E. Wall, for original license.....	5 00
From E. Clement, for original license.....	5 00
From E. Bellinger, for original license.....	5 00
From W. B. Kirst, for renewal of license.....	3 00
From Ray O. Moses, for original license.....	5 00
From F. E. Brown, for original license.....	5 00



From G. W. Smith, for original license.....	\$5 00
From B. H. Hall, for original license.....	5 00
From O. Helms, for renewal of license.....	3 00
From W. Falkner, for renewal of license.....	3 00
From A. Bennett, for renewal of license.....	3 00
From F. D. Carlin, for renewal of license.....	3 00
From R. Glassbrook, for renewal of license.....	3 00
From G. B. Hiller, for renewal of license.....	3 00
From J. H. Waddell, for original license.....	5 00
From F. Williams, for original license.....	5 00
From A. J. Pollard, for original license.....	5 00
From Harry Knapp, for renewal of license.....	3 00
From Albert Dalton, for original license.....	5 00
From C. E. Fairchild, for renewal of license.....	3 00
From H. W. Crownhart, for renewal of license.....	3 00
From Geo. Knickerbocker, for renewal of license.....	3 00
From D. S. Burleigh, for original license.....	5 00
From John Long, for renewal of license.....	3 00
From F. W. Crandall, for original license.....	5 00
From John Waugh, for renewal of license.....	3 00
From W. A. Esterbrook, for renewal of license.....	3 00
From F. J. Dennison, for renewal of license.....	3 00
From John Nichols, for original license.....	5 00
From L. A. Withey, for renewal of license.....	3 00
From Wm. Nichols, for renewal of license.....	3 00
From R. L. Barr, for renewal of license.....	3 00
From E. L. Aubuff, for renewal of license.....	3 00
From A. Swanson, for renewal of license.....	3 00
From J. T. Durham, for renewal of license.....	3 00
From J. M. Brown, for original license.....	5 00
From M. J. Scoville, for renewal of license.....	3 00
From M. J. Scoville, for renewal of license.....	3 00
From J. A. Keyser, for renewal of license.....	3 00
From F. B. Parrish, for renewal of license.....	3 00
From Newton Grainor, for renewal of license.....	3 00
From Ernest Ellis, for original license.....	5 00
From A. E. Johnson, for original license.....	5 00
From E. L. Gardner, for original license.....	5 00
From B. Bascom, for renewal of license.....	3 00
From Tim Brennan, for renewal of license.....	3 00
From J. W. Martin, for original license.....	5 00
From Col. Toney, for renewal of license.....	3 00
From M. A. Toney, for renewal of license.....	3 00
From E. E. Sutton, for renewal of license.....	3 00
From H. E. Tones, for renewal of license.....	3 00
From H. A. Brown, for renewal of license.....	3 00
From J. J. Foster, for renewal of license.....	3 00
From D. C. Walkley, for renewal of license.....	3 00
From J. Blackman, for renewal of license.....	3 00
From Ed. Cooley, for renewal of license.....	3 00

From A. W. Walkley, for original license.....	\$5 00
From C. A. Thomson, for renewal of license.....	3 00
From J. Henry, for renewal of license.....	3 00
From F. Williams, for renewal of license.....	3 00
From E. A. Berry, for original license.....	5 00
From J. M. Follette, for renewal of license.....	3 00
From B. B. Relyea, for original license.....	5 00
From W. E. Lang, for renewal of license.....	3 00
From D. B. Morton, for original license.....	5 00
From George McNab, for renewal of license.....	3 00
From W. C. White, for renewal of license.....	3 00
From C. E. Forbes, for renewal of license.....	3 00
From H. M. Brown, for renewal of license.....	3 00
From H. F. Sutton, for original license.....	5 00
From H. M. Brown, for renewal of license.....	3 00
From P. B. Pommer, for original license.....	5 00
From H. Stockwell, for original license.....	5 00
From T. J. Ryan, for original license.....	5 00
From C. P. Bears, for original license.....	5 00
From James Walsh, for original license.....	5 00
From O. A. Barker, for renewal of license.....	3 00
From F. R. Knapp, for renewal of license.....	3 00
From Ross Coyne, for renewal of license.....	3 00
From R. Van Devoort, for renewal of license.....	3 00
From T. W. McAnarney, for renewal of license.....	3 00
From Geo. Cary, for original license.....	5 00
From G. Rossia, for renewal of license.....	3 00
From Charles Kellogg, for original license.....	5 00
From A. J. Haughey, for original license.....	5 00
From C. H. Meen, for original license.....	5 00
From Dean Smith, for original license.....	5 00
From W. A. Grule, for original license.....	5 00
From J. A. Nierre, for renewal of license.....	3 00
From C. E. Wilson, for original license.....	5 00
From R. L. Hayden, for renewal of license.....	3 00
From W. H. Cleary, for renewal of license.....	3 00
From H. E. Conroy, for renewal of license.....	3 00
From W. M. Yager, for renewal of license.....	3 00
From Frank Hunter, for renewal of license.....	3 00
From J. B. Gruseley, for original license.....	5 00
From G. E. Kipp, for renewal of license.....	3 00
From W. L. Winslow, for renewal of license.....	3 00
From A. J. Falter, for renewal of license.....	3 00
From J. L. Foote, for renewal of license.....	3 00
From J. E. Suwerero, for renewal of license.....	3 00
From W. Anderson, for renewal of license.....	3 00
From W. W. Schooley, for renewal of license.....	3 00
From N. Merritt, for renewal of license.....	3 00
From C. H. Calkins, for renewal of license.....	3 00
From W. C. Hayes, for renewal of license.....	3 00

From S. G. Scutt, for renewal of license.....	\$3 00
From R. Leonard, for original license.....	5 00
From S. P. Truesdale, for original license.....	5 00
From W. Finkle, for renewal of license.....	3 00
From W. E. Crandall, for renewal of license.....	3 00
From W. E. Crandall, for renewal of license.....	3 00
From H. Crandall, for renewal of license.....	3 00
From J. B. Simpson, for renewal of license.....	3 00
From Helen Simpson, for renewal of license.....	3 00
From C. E. Wilson, for renewal of license.....	3 00
From F. D. Thompson for renewal of license.....	3 00
From G. W. Wraugh, for renewal of license.....	3 00
From Henry Truax, for renewal of license.....	3 00
From W. A. Carroll, for original license.....	5 00
From J. E. Sexton, for renewal of license.....	3 00
From J. H. Braisten, for original license.....	5 00
From L. B. Holland, for original license.....	5 00
From J. C. Leach, for renewal of license.....	3 00
From Frank Levett, for original license.....	5 00
From Howard Sexton, for renewal of license.....	3 00
From James Webster, for renewal of license.....	3 00
From James Davis, for original license.....	5 00
From H. W. Buckler, for renewal of license.....	3 00
From C. A. French, for original license.....	5 00
From Geo. O. Cook, for renewal of license.....	3 00
From C. H. Bogle, for renewal of license.....	3 00
From A. H. Bruer, for renewal of license.....	3 00
From F. Sanders, for renewal of license.....	3 00
From F. Sanders, for renewal of license.....	3 00
From Scott West, for renewal of license.....	3 00
From G. P. Buerle, for renewal of license.....	3 00
From W. G. Nolan, for original license.....	5 00
From H. H. Higby, for renewal of license.....	3 00
From R. C. Higby, for renewal of license.....	3 00
From D. B. Sperry, for renewal of license.....	3 00
From Will Erwin, for renewal of license.....	3 00
From E. S. Glenn, for original license.....	5 00
From R. Claussen, for original license.....	5 00
From S. G. Glenn, for original license.....	5 00
From Fred Williams, for renewal of license.....	3 00
From U. L. Smith, for original license.....	5 00
From H. M. Bellows, for renewal of license.....	3 00
From J. S. Durant, for renewal of license.....	3 00
From E. W. Owen, for renewal of license.....	3 00
From Sam Wood, for renewal of license.....	3 00
From D. A. Leslow, for renewal of license.....	3 00
From D. A. Leslow, for renewal of license.....	3 00
From William White, for renewal of license.....	3 00
From E. Freeman, for original license.....	5 00

From E. E. Moxley, for renewal of license.....	\$3 00
From E. J. White, for renewal of license.....	3 00
From E. O. Shafer, for renewal of license.....	3 00
From H. W. Thomas, for renewal of license.....	3 00
From S. C. Blauvert, for renewal of license.....	3 00
From H. W. Allen, for renewal of license.....	3 00
From F. Colbatte, for renewal of license.....	3 00
From J. R. Moody, for renewal of license.....	3 00
From J. E. Hardin, for renewal of license.....	3 00
From E. E. Baker, for renewal of license.....	3 00
From H. E. Hooker, for original license.....	5 00
From Wm. Sabia, for renewal of license.....	3 00
From Earl Fields, for renewal of license.....	3 00
From E. Brewster, for renewal of license.....	3 00
From A. W. Hayes, for renewal of license.....	3 00
From H. H. Hanmer, for original license.....	5 00
From Thomas George, for original license.....	5 00
From H. P. Gridale, for original license.....	5 00
From H. C. Stevens, for original license.....	5 00
From A. H. Stevens, for renewal of license.....	3 00
From C. A. Lawrence for renewal of license.....	3 00
From R. P. Kimball, for original license.....	5 00
From F. L. Thayer, for renewal of license.....	3 00
From Geo. W. Dewey, for renewal of license.....	3 00
From C. E. Danna, for renewal of license.....	3 00
From M. Muncil, for renewal of license.....	3 00
From F. Dibble, for renewal of license.....	3 00
From H. Tranor, for renewal of license.....	3 00
From W. Vassar, for original license.....	5 00
From W. H. McCredie, for original license.....	5 00
From H. P. Don, for original license.....	5 00
From A. Van Decar, for original license.....	5 00
From G. W. Richardson, for renewal of license.....	3 00
From C. J. Smith, for renewal of license.....	3 00
From W. D. Neice, for original license.....	5 00
From H. W. Fleury, for renewal of license.....	3 00
From Geo. Hancel, for original license.....	5 00
From C. Herring, for original license.....	5 00
From Harry Rosa, for original license.....	5 00
From R. C. Smith, for renewal of license.....	3 00
From L. Vandervort, for original license.....	5 00
From John Crosby, for original license.....	5 00
From W. D. Vandervort, for original license.....	5 00
From A. C. Lent, for renewal of license.....	3 00
From A. C. Lent, for renewal of license.....	3 00
From G. C. Lent, for renewal of license.....	3 00
From H. Wansfield, for renewal of license.....	3 00
From H. A. Dewey, for original license.....	5 00
From O. L. Bartholemew, for renewal of license.....	3 00

From C. H. Stark, for original license.....	\$5 00
From J. Bartholmew, for renewal of license.....	3 00
From W. J. Beckwith, for original license.....	5 00
From James Argnetta, for original license.....	5 00
From B. A. Lee, for renewal of license.....	3 00
From J. L. Davison, for renewal of license.....	3 00
From John Blair, for renewal of license.....	3 00
From John Blair, for renewal of license.....	3 00
From G. H. Terry, for original license.....	5 00
From J. R. Odell, for renewal of license.....	3 00
From E. W. Wilson, for original license.....	5 00
From S. H. Graves, for original license.....	5 00
From F. C. Decker, for renewal of license.....	3 00
From F. H. Luther, for renewal of license.....	3 00
From E. E. Thomas, for renewal or license.....	3 00
From C. Parquette, for renewal of license.....	3 00
From Clyde Heagle, for renewal of license.....	3 00
From W. J. Smith, for original license.....	5 00
From E. A. Dufour, for renewal of license.....	3 00
From H. C. Stone, for renewal of license.....	3 00
From E. Vandervoort, for original license.....	5 00
From L. Vandervoort, for original license.....	5 00
From R. Hanna, for renewal of license.....	3 00
From G. F. Williams, for renewal of license.....	3 00
From W. H. Treadwell, for renewal of license.....	3 00
From M. Callahan, for renewal of license.....	3 00
From F. S. Trippe, for renewal of license.....	3 00
From Hy Van Wagoner, for renewal of license.....	3 00
From W. H. Johnson, for original license.....	5 00
From M. Kelsey, for renewal of license.....	3 00
From H. J. Sarvis, for renewal of license.....	3 00
From H. J. Sarvis, for renewal of license.....	3 00
From W. D. Keefer, for renewal of license.....	3 00
From C. B. Strain, for renewal of license.....	3 00
From F. E. Kellogg, for renewal of license.....	3 00
From W. H. Pickert, for renewal of license.....	3 00
From Wm. Brown, for renewal of license.....	3 00
From L. H. Chapman, for renewal of license.....	3 00
From L. H. Chapman, for renewal of license.....	3 00
From J. F. Daprix, for renewal of license.....	3 00
From A. J. Geicher, for renewal of license.....	3 00
From J. E. Kelsey, for renewal of license.....	3 00
From C. L. Bloss, for renewal of license.....	3 00
From J. Devendorf, for renewal of license.....	3 00
From E. W. Roaman, for original license.....	5 00
From E. W. Pickert, for renewal of license.....	3 00
From F. A. Chapman, for renewal of license.....	3 00
From R. H. Searle, for renewal of license.....	3 00
From A. Perkins, for renewal of license.....	3 00

From J. McCarty, for renewal of license.....	\$3 00
From C. D. Blaisdell, for renewal of license.....	3 00
From C. D. Smith, for renewal of license.....	3 00
From Wm. Smithson, for renewal of license.....	3 00
From L. A. Boyce, for renewal of license.....	3 00
From Philo Pool, for renewal of license.....	3 00
From F. M. Meyer, for renewal of license.....	3 00
	<hr/>
	\$3,880 00
	<hr/>

The above amount of money has been deposited with the State Treasurer and can be found in Statement No. 10.

## SUPERINTENDENT OF PUBLIC WORKS.

SUPERINTENDENTS.	Residences.	Appointed.
Benjamin S. W. Clark .....	Sing Sing .....	Jan. 30, 1878
Silas B. Dutcher .....	Brooklyn .....	Jan. 16, 1880
James Shanahan .....	Tribes Hill .....	Jan. 16, 1883
Edward Hannan .....	Troy .....	Dec. 16, 1889
George W. Aldridge .....	Rochester .....	Jan. 2, 1895
John N. Partridge .....	Brooklyn .....	Jan. 16, 1899
Charles S. Boyd .....	New York .....	Dec. 20, 1901
N. V. V. Franchot .....	Olean .....	Jan. 4, 1905
Frederick C. Stevens .....	Attica .....	Jan. 14, 1907
Charles E. Treman .....	Ithaca .....	Jan. 4, 1911

## DEPUTY SUPERINTENDENTS.

Patrick J. McWeeney .....	Herkimer .....	Oct. 6, 1896
Elon H. Hooker .....	New York .....	Feb. 1, 1897
Winslow M. Mead .....	Rochester .....	Aug. 25, 1901

## ASSISTANT SUPERINTENDENTS.

Eastern Division .....	W. G. Robinson, Schenectady
Middle Division .....	Duncan W. Peck, Syracuse
Western Division .....	Charles McDonough, Buffalo

ROSTER OF EMPLOYEES IN THE OFFICE OF SUPER-  
INTENDENT OF PUBLIC WORKS.

Assistant to the deputy .....	Alfred M. O'Neill
Financial Clerk .....	P. J. McWeeney
Assistant Financial Clerk .....	Edward L. Walsh
Clerk of Statistics .....	John E. Winne
Stenographer .....	Jessie E. Holmes
Index Clerk .....	F. S. Harder
Special Agent .....	D. D. N. Marvin
Messenger .....	Frank Langwig

BOUNDARIES OF DIVISIONS AND SECTIONS OF THE  
CANALS.

The following are the boundaries of the divisions of the canals as fixed by the Canal Board, August 16, 1900:

## EASTERN DIVISION.

Erie canal.—From the south end of the Albany basin to the easterly line of Oneida county; Champlain canal, and their tributary feeders.

## MIDDLE DIVISION.

Erie canal.—From the easterly line of Oneida county to the easterly line of Wayne county; Black River canal; Oswego canal; Cayuga and Seneca canal, and their tributary feeders.

## WESTERN DIVISION.

Erie canal.—From the easterly line of Wayne county through the city of Buffalo, including its tributary feeders.

The boundaries of the sections of the canals have been fixed as given below:

## ERIE CANAL.

Section 1. Erie canal, from the south end of the Albany basin to the west end of lower Mohawk aqueduct, including Watervliet basin, and the Watervliet and Port Schuyler sidecuts; also the Champlain canal from its junction with the Erie canal to a point 200 feet north of the Cohoes guard-lock.

Section 2. Erie canal, from west end of the lower Mohawk aqueduct to the head of lock 27.

Section 3. Erie canal, from the head of lock 27 to the head of lock 34.

Section 4. Erie canal, from the head of lock 34 to the easterly line of Oneida county.

Section 5. Erie canal, from the easterly line of Oneida county to the westerly side of Peterboro street bridge in the village of Canastota.

Section 6. Erie canal, from the westerly side of Peterboro street bridge in the village of Canastota to and including the Camillus feeder. Also that portion of the Oswego canal from its junction with the Erie canal in the city of Syracuse to and including lock No. 4 known as Mud lock, on the Liverpool level.

Section 7. Erie canal from the westerly side of Camillus feeder to the easterly line of Wayne county.

Section 8. Erie canal, from the easterly to the westerly line of Wayne county.



Section 9. Erie canal, from the westerly line of Wayne county to the westerly line of Monroe county.

Section 10. Erie canal, from the westerly line of Monroe county to the head of the guard-lock west of Lockport.

Section 11. Erie canal, from the head of the guard-lock west of Lockport, through the city of Buffalo, including Black Rock harbor, Erie and Ohio basins and the Clark and Skinner canal.

### CHAMPLAIN CANAL.

Section 1. Champlain canal, from a point 200 feet north of Cohoes guard-lock to the foot of lock 11, including the Troy sloop-lock and dam and the pond above.

Section 2. Champlain canal, from the foot of lock 11 to the north side of west-weir at Dunham's Basin; also, Glens Falls feeder, the feeder dam and pond above.

Section 3. Champlain canal, from the north side of the waste-weir at Dunham's Basin to Lake Champlain.

### BLACK RIVER CANAL.

Section 1. Black River canal, from the junction of the Black River canal with the Erie canal to the foot of lock 71, at Boonville; the feeder from Boonville to Forestport; the Black river above the dam at Forestport, including the dam; also all the reservoirs and feeders tributary to the canal and feeder as described above.

Section 2. Black River canal, from the foot of lock 71, at Boonville, to Black river, at Lyons Falls; the Black river improvement from Lyons Falls to Carthage, including the dam; also Moose river improvement.

### OSWEGO CANAL.

Oswego canal from lock No. 4, known as Mud lock, through Oswego, including the Seneca river towing path, the Baldwinsville canal and the Oneida river improvement.

### CAYUGA AND SENECA CANAL.

Cayuga and Seneca sections.—Cayuga and Seneca canal, from Montezuma to Geneva, with spur from Mud lock to Cayuga lake.

# EASTERN DIVISION.

---

## REPORT OF THE ASSISTANT SUPERINTENDENT OF PUBLIC WORKS.

OFFICE OF THE  
ASSISTANT SUPERINTENDENT OF PUBLIC WORKS,  
EASTERN DIVISION OF THE CANALS,

ALBANY, N. Y., *December 31, 1911.*

HON. C. E. TREMAN, *Superintendent of Public Works:*

Dear Sir.—I herewith submit my annual report for the fiscal year ended September 30, 1911, for the Eastern Division of the canals.

This division comprises that portion of the Erie canal extending from:

	Miles.
Albany to east line of Oneida county.....	106.24
Albany basin (Laws of 1849).....	.77
Port Schuyler and West Troy side-cuts.....	.35
Mohawk feeder (Little Falls).....	.50
	<hr/> 107.86 <hr/>
Champlain canal and Waterford side-cut.....	66.00
Pond above Troy dam.....	3.00
Glens Falls feeder and pond above.....	12.00
	<hr/> 81.00 <hr/>
Total Erie and Champlain canals.....	<hr/> 188.86 <hr/>

Navigation opened on both the Erie and Champlain canals at noon May 15th, and closed at midnight November 15th. Taking into consideration the dilapidated condition of many of the boats navigating the canals, the delays to navigation caused by sinking boats were comparatively slight. There were, however, some delays due to other causes, the most serious of which was due to the failure of one of the gates at the Sloop Lock, which held up about forty boats for a period of three days. There were some other minor accidents of this character, none of which resulted in the absolute suspension of navigation, but did cause inconvenience to some extent.

Several leaks developed in both the Erie and Champlain canals during the season, the most of which were of such character as to cause no delay to navigation. One, however, in the vicinity of Little Falls did cause three different delays to navigation, totaling approximately twenty hours.

Several applications have been received from Barge Canal contractors and the State Engineer's department for the consent of this department to do away with the Rocky Rift feeder. This is a matter which I have investigated quite thoroughly, and have reported unfavorably upon, because of the uncertainty of the supply of water which would have to come from the Delta reservoir through Section Five of the Erie canal. Considerable difficulty was experienced during the last season to get sufficient water from this source to supply our nine-mile level on the western extremity of this Division.

Owing to the construction of gate piers in the Erie canal at the site of Barge Canal Dam No. 3, Vischers Ferry, the width of the channel has been narrowed to such an extent as to cause considerable difficulty to navigation on account of increased current. In order to overcome this difficulty it was found necessary to construct a by-pass around one of these piers, entailing considerable expense, which was paid by the State Engineer from the Barge Canal fund. For a time this caused considerable delay and annoyance, which was finally overcome by the establishment of a hauling apparatus for the purpose of assisting up-boats through this narrow passage, the expense of which was also borne by the Barge Canal Fund. It will be necessary to continue this hauling appa-

tus for the coming season, the expense of which it is presumed will be met in the same manner as last year.

The dam in the Hudson river at the head of the Glens Falls feeder is in very bad condition, and some means should be devised for its repair during the coming season of low water, as a break in this structure would result in the tying up of the entire Champlain canal above Northumberland.

The dam across the Mohawk river at Cohoes is also in need of extensive repairs, which should also be looked after during the coming season of low water.

All of the wooden structures on this Division should be painted during the coming season.

Extensive repairs on the Glens Falls feeder are now under way, tending toward the stoppage of serious leakages resulting in annual damage to abutting property owners. Extensive work has been done annually with this end in view, and should be continued until these difficulties, which are extensive along the entire line, have been overcome.

All weeds and brush were cut and burned in a thorough manner during the past season.

The State stone crushing plant at Fort Hunter was not operated during the past season, as most of the towing-path repairs were made with gravel. I recommend, however, that this plant be operated for at least a part of the coming season, as there are a number of places on the towing-path which will require repairing, and which can be made more serviceable with crushed stone than with gravel.

State dredges Nos. 1 and 3 and the tugs Schenectady and Amsterdam were employed during the entire season at various points on the Division.

About three and one-half miles of timber docking was built during the season. About twenty-one miles of the towing-path graveled; about sixty-two miles of towing-path scraped; about sixty-five miles cross-ditched, and about one mile of banks riprapped.

GENERAL IMPROVEMENTS ON THE EASTERN DIVISION OF THE CANALS FROM JANUARY 1, 1911, TO JANUARY 1, 1912.

*Section One, Erie Canal.*

One thousand lineal feet of vertical wall concreted in Watervliet.

Bulkheads and fender planking repaired through the Sixteens.

Vertical wall repairs through the Sixteens.

Docking repaired between the lower side-cut locks and lock No. 3.

All bridge approaches repaired.

Wall and docking at lock No. 1, Champlain canal, repaired.

The towing-path was scraped, graveled and cross-ditched between bridges Nos. 15 and 16; between locks Nos. 3 and 18, and for a distance of two miles west of lock No. 18.

Masonry at the head of locks Nos. 13 and 15 repointed and grouted.

Filling new concrete wall between bridges Nos. 21 and 22.

Docking repaired between locks Nos. 3 and 18.

Bridge No. 15, Watervliet, repaired.

Upper and lower bulkheads through the Sixteens repaired.

Nine new lock gates installed.

Taking six spans from Lower Mohawk aqueduct, and building temporary dam under bridge No. 34.

*Section Two, Erie Canal.*

Union street lift bridge repaired.

All bridge approaches repaired.

Towing-path scraped, graveled and cross-ditched from aqueduct No. 1 to lock No. 19; east of lock No. 19; aqueduct No. 2 to bridge No. 54; between D. & H. bridge and Union street lift bridge; from General Electric plant to lock No. 23; between bridges Nos. 68 and 69, and east of bridge No. 76.

Docking repaired between aqueduct No. 1 and lock No. 21; at lock No. 25 and at bridge No. 70.

Culvert No. 27 cleaned out.

New concrete coping between bridges Nos. 61 and 62.

Basin above Pattersonville aqueduct dam cleaned out.

Berme bank at bridge No. 75 riprapped.

Bridges Nos. 53 and 74 rebuilt.

New iron needle beams placed in bridge No. 57.

Slope and vertical walls repaired at Flint Hill; near lower Mohawk aqueduct and at bridge No. 62.

Leaks repaired at Clute's drydock; at culvert No. 26, and near bridge No. 65.

Concrete wall built at lower end of locks Nos. 23, 24, 25, 26 and 27.

### *Section Three, Erie Canal.*

Culvert repaired and cleaned at lock No. 27.

All bridge approaches repaired.

Towing-path scraped, graveled and cross-ditched from lock No. 27 to Amsterdam; between bridges Nos. 95 and 96; east of bridge 96; east of aqueduct No. 7; between aqueducts Nos. 7 and 8; east of bridge No. 106; between locks Nos. 32 and 33, and east of lock No. 34.

Culvert No. 61 and the four-arch culvert at Amsterdam cleaned out.

Apron of the Schoharie creek dam repaired.

Banks riprapped west of Schoharie creek aqueduct and between bridges Nos. 98 and 100.

Docking repaired west of aqueduct No. 6; west of bridge No. 105; east and west of bridge No. 106, and west of bridge No. 110.

New concrete wall at lock No. 33.

Four new gates in lock No. 29.

### *Section Four, Erie Canal.*

New lock gates in locks Nos. 35, 36, 39 and 40.

Wooden bridges Nos. 126, 143 and 165 rebuilt.

All bridge approaches repaired.

Ditch under culvert No. 70 cleaned out.

Towing-path scraped, graveled and cross-ditched east and west of lock No. 36; between locks Nos. 39 and 40; east of lock No. 41; west of lock No. 45, and at bridge No. 168.

Retaining wall at bridges No. 137 and No. 156 repaired.

Culvert No. 78 cleaned out.

Creek under Ilion aqueduct cleaned out

Concrete wall at lower end of lock No. 45.

*Section One, Champlain Canal.*

Wooden bridges Nos. 45, 46 and 57 rebuilt.

Waste weir No. 7 repaired.

Towing-path scraped, cross-ditched and graveled between locks Nos. 5 and 6; from lock No. 6 to lock No. 8; from bridge No. 22 to lock No. 7; from lock No. 9 north; from bridge No. 35 north, and between bridges Nos. 43 and 46; from Wilburs basin waste weir to bridge No. 48; from bridge No. 49 to No. 62, and south of Searls waste weir.

Approach to bridge No. 40 repaired.

Bank riprapped north of bridge No. 115, and north of lock No. 9.

Docking repaired north of bridge No. 37; north of bridge No. 38; east approach of bridge No. 45, and between bridges Nos. 58 and 66.

*Section Two, Champlain Canal.*

New tumble gate at lock No. 13.

Rebuilt one-half sluiceway around the five-combined locks.

Docking repaired north of lock No. 11; north of bridge No. 77; south of lock No. 14; between bridges Nos. 83 and 84; at bridge No. 84; south of bridge No. 85; between bridges Nos. 90 and 91; at bridge No. 95; between locks Nos. 5 and 6, Glens Falls feeder, and at lower end of lock No. 7, Glens Falls feeder.

Towing-path raised, scraped, graveled and cross-ditched between bridges Nos. 91 and 93; from lock No. 11 to bridge No. 94; from Fort Edward to Dunhams Basin, and between locks Nos. 13 and 14 of the Glens Falls feeder.

Sluiceway at lock No. 11, Glens Falls feeder, concreted.

Wall at head of locks Nos. 4 and 5, Glens Falls feeder, concreted.

*Section Three, Champlain Canal.*

Towing-path scraped, graveled and cross-ditched from Dunhams Basin to Fort Ann.

Bank riprapped south of bridge No. 112.

Docking at north end of lock at Whitehall repaired.

During the past year there has been made at and furnished from the State shops, at Cohoes, and distributed to the different sections, manufactured materials, representing money in value, as follows:

Section No. 1, Erie canal.....	\$5,448 24
Section No. 2, Erie canal.....	853 26
Section No. 3, Erie canal.....	579 68
Section No. 4, Erie canal.....	419 65
Section No. 1, Champlain canal.....	1,222 26
Section No. 2, Champlain canal.....	510 14
Section No. 3, Champlain canal.....	40 66
State Dredge No. 1.....	325 78
State Dredge No. 3.....	423 93
State Tug "City of Schenectady".....	21 96
State Tug "City of Amsterdam".....	65 71
State Inspection Boat "Cruiser".....	30 69
State Steam Pump Boat.....	57 23
Eastern Division (one mud scow).....	1,877 85
	<hr/>
	\$11,877 04
	<hr/> <hr/>

Financial tables showing ordinary expenditures made from October 1, 1910, to September 30, 1911, are herewith attached.

W. G. ROBINSON,

*Assistant Superintendent.*



*Detailed statement of expenditures on the Eastern Division of the Canals, by David H. Lewis, Assistant Supt. of Public Works, from October 1st, 1910, to March 20th, 1911, both inclusive.*

FOR WHAT EXPENDED.	Office.	Eastern Division.	ERIE CANAL.				CHAMPLAIN CANAL.		
			Section 1.	Section 2.	Section 3.	Section 4.	Section 1.	Section 2.	Section 3.
Barge canal lock (operating).....		\$11 06	.....	\$25 80	.....	\$22 69	\$5 26	\$15 82	\$3,470 00
Blacksmithing.....		.....	.....	14 00	.....	.....	.....	.....	2 55
Buying dead animals.....		.....	.....	.....	.....	.....	.....	.....	.....
Clerk, salary of.....	\$733 31	.....	\$73 50	.....	.....	.....	.....	.....	.....
Cement.....		.....	868 90	120 51	\$87 97	69 58	331 85	58 66	55 60
Coal, all uses.....		91 52	293 92	301 62	68 79	58 82	15 00	50 82	63 11
Hardware, iron castings, etc.....		2,179 76	.....	.....	.....	.....	.....	.....	.....
Lumber and timber (Cohoes shop).....		3,604 16	4,201 69	4,146 18	2,605 83	1,651 76	1,394 26	1,872 06	912 92
Lumber and timber, for sections.....		.....	8,065 42	1,360 95	1,369 16	574 89	575 37	935 00	124 50
Labor and team work.....		4,872 09	.....	.....	.....	.....	.....	.....	.....
Labor, skilled (Cohoes shop).....		4,580 29	2,297 01	.....	.....	.....	.....	.....	.....
Labor on tugs, dredges and scows.....		4,920 46	13 16	2 50	84 00	42 50	.....	6 00	.....
Merchandise, general.....		398 86	288 00	108 00	.....	132 00	132 00	204 00	72 00
Oil for locks.....		.....	26 00	2 25	4 50	41 38	.....	240	.....
Paints, painting, oil, etc.....	40 00	230 44	.....	35 30	.....	.....	.....	.....	.....
Repairs to tugs, dredges and scows.....		217 37	.....	.....	.....	.....	.....	.....	.....
Rent, office.....		358 88	15 40	.....	52 63	62 80	.....	20 18	40 00
Ropes, lines, etc.....		52 24	.....	.....	.....	.....	.....	.....	13 46
Supplies to tugs, dredges and scows.....		9 70	28 80	15 35	21 04	30 00	.....	.....	.....
Stationery, printing, etc.....	4 13	.....	.....	.....	.....	.....	.....	.....	.....
Stenographer and typewriter.....	458 31	.....	80 75	.....	.....	41 00	.....	.....	21 00
Sand, gravel and clay.....		.....	268 90	.....	.....	.....	.....	148 85	.....
Stone.....		.....	10 20	117 11	74 45	24 65	44 86	46 25	48 96
Telephone and telegraph service.....	166 94	174 85	25 00	87 59	102 21	37 99	.....	24 82	59 22
Transportation, freight and express.....		218 70	.....	.....	.....	32 20	.....	.....	211 50
Towing.....		.....	.....	.....	.....	.....	.....	.....	.....
Total.....	\$1,402 69	\$17,920 38	\$16,556 65	\$6,337 16	\$4,470 58	\$2,822 26	\$2,998 60	\$3,382 86	\$5,094 82
Grand total.....	.....	.....	.....	.....	.....	.....	.....	.....	\$60,988 00

DETAILED STATEMENT OF expenditures on the Eastern Division of the canals, by W. G. Robinson, Assistant Superintendent of Public Works, from March 21, 1911, to September 30, 1911, both inclusive.

FOR WHAT EXPENDED.		Office.	Eastern Division.	ERIE CANAL.			CHAMPLAIN CANAL.			
				Section 1.	Section 2.	Section 3.	Section 4.	Section 1.	Section 2.	Section 3.
Barge canal lock (operating).....					\$66 19	\$21 15	\$21 63	\$2 20	\$21 33	\$69 00
Blacksmithing.....										3 75
Burying dead animals.....										
Clerk, salary of.....	\$866 69									
Cement.....			\$30 00	80 25						
Coal, all uses.....		\$1,368 04	275 32	108 08		31 35	2 75	37 00	26 40	19 20
Har ware, iron castings, etc.....		2,462 30	153 30	784 87		320 75	236 40	182 71	34 98	6 75
Lumber and timber (Cohoes shop).....		201 76								128 10
Lumber and timber for sections.....			44 22	100 69		403 01	46 07	74 45	75 30	
Labor and team work.....		7,688 20	3,227 38	2,729 30		1,656 02	1,365 82	1,002 09	483 00	158 42
Labor, skilled (Cohoes shop).....		7,860 34								254 25
Labor on tugs, dredges and scows.....		1,627 39	2,229 56	2,213 90		377 12	1,583 79	295 85	263 81	
Merchandise, general.....		4,474 86	66 28	569 14		59 64	82 54	107 35	95 98	135 72
Oil for locks.....										
Paints, painting, oil, etc.....		721 67		25 93		47 00	108 80	303 18	5 35	10 10
Postage.....	44 00									
Repairs to tugs, dredges and scows.....		1,443 98					49 07	56 35	85 69	5 50
Rent, office.....										32 50
Rope, lines, etc.....		498 41	222 38	454 15		161 50	198 90	202 30	246 82	54 64
Supplies to tugs, dredges and scows.....		172 47	4 50	24 50						
Stationery, printing, etc.....	2 25	11 10	40 50	26 63		33 60	28 48		21 30	
Stenographer and typewriter.....	541 69									
Sand, gravel and clay.....										
Stone.....			765 05	5 45		1 50	45 00	11 50		
Telephone and telegraph service.....	57 56	184 10	15 10	54 94		9 30	6 00	38 66	2 89	63 35
Transportation, freight and express.....		302 60	15 00	58 02		63 93	60 66	12 46	58 91	313 65
Towing.....		106 75		52 00			4 00			590 00
Total.....	\$1,512 19	\$25,123 97	\$7,088 59	\$7,354 04	\$3,185 87	\$4,216 24	\$2,461 95	\$1,596 97	\$1,844 93	\$1,844 93
Grand total.....										\$54,384 75

ANNUAL REPORT, *showing the name and number of structures or works, the different heads of expenditures, and the cost of each, on the line of the canal under the charge of Owen Kearney, superintendent of repairs for section 1 of Erie canal during the 190 days ended September 30, 1911.*

STRUCTURES OR WORKS, ETC.	Whole number on section.	Total expenditures.
Locks.....	24	\$300 00
Lock-tending (exclusive of oil).....		26,544 52
Lock-gates.....	186	
Aqueducts.....	1	
Waste weirs.....	7	
Culverts.....	16	
Weigh-locks.....	2	
Farm bridges (wood).....	6	
Farm bridges (iron).....	5	
Road bridges (wood).....	4	
Road bridges (iron).....	22	
Tow-path bridges (wood).....	2	
Tow-path bridges (iron).....	2	4,080 40
State scows.....	2	
Small boats.....	1	
Ice breakers.....	1	
Under water excavators.....	2	
Lock-houses.....	6	
Work-shops.....	1	
Watch-houses.....	24	
Store-houses.....	2	
Timber-sheds.....	1	
Cleaning out bottom of canal during spring repairs.....		800 00
Dams (feet, 1,600).....	1	
Slope wall.....		753 75
Watching canal.....		2,537 58
Disbursing clerk.....		450 00
Total.....		\$35,466 25

## REPAIRS AND IMPROVEMENTS.

All locks have been repaired through the section where required.

All bridges have been replanked and repaired wherever required.

Grass and weeds have been cut and burned along the entire section.

About 4,000 feet of lineal docking have been built through the section.

A large number of snubbing posts have been set during the season.

OWEN KEARNEY,  
*Superintendent.*

*ANNUAL REPORT, showing the name and number of structures or works, the different heads of expenditures, and the cost of each, on the line of the canal under the charge of James Scanlon, superintendent of repairs for section 2 of Erie canal, during the 170 days ended March 19, 1911.*

STRUCTURES OR WORKS, ETC.	Whole number on section.	Total expenditures.
Locks.....	9	.....
Lock-gates.....	74	.....
Aqueducts.....	3	.....
Waste-weirs.....	2	.....
Culverts.....	18	.....
Farm bridges (wood).....	14	.....
Farm bridges (iron).....	1	.....
Road bridges (wood).....	18	.....
Road bridges (iron).....	10	.....
Tow-path bridges (wood).....	1	.....
Tow-path bridges (iron).....	1	.....
Feeder bridge (wood).....	2	.....
State scows.....	3	.....
Ice breakers.....	2	.....
Lock-houses.....	3	.....
Work-shops.....	1	.....
Watch-houses.....	11	.....
Store-houses.....	2	.....
Watching canal and State property.....	.....	\$45 00

ANNUAL REPORT, showing the name and number of structures or works, the different heads of expenditures, and the cost of each, on the line of the canal under the charge of J. T. Wasson, superintendent of repairs for section 2 of Erie canal, during the 195 days ended September 30, 1911.

STRUCTURES OR WORKS, ETC.	Whole number on section.	Total expenditures.
Locks.....	9	\$1,287 34
Lock-tending (exclusive of oil).....		11,189 77
Lock-gates.....	74	.....
Aqueducts.....	3	257 90
Waste-weirs.....	2	.....
Culverts.....	18	.....
Farm bridges (wood).....	14	} 775 79
Farm bridges (iron).....	1	
Road bridges (wood).....	18	
Road bridges (iron).....	10	
Tow-path bridges (wood).....	1	
Tow-path bridges (iron).....	1	} .....
Feeder bridges (wood).....	2	
State scows.....	4	90 00
Ice breakers.....	2	.....
Lock-houses.....	3	.....
Work-shops.....	1	.....
Watch-houses.....	10	.....
Store-houses.....	2	.....
Timber-sheds.....	2	.....
Raising and repairing tow-path and berme bank, not including repairs to slope walls.....		2,120 86
Cleaning out bottom of canal during spring repairs.....		1,165 00
Docking.....		548 83
Watching canal.....		2,329 54
Disbursing clerk.....		450 00
Watching State houses.....		270 00
Single team.....		150 00
Scraping towing path.....		144 00
Cars and tracks, gravel pits.....		70 89
Dam and feeder (Rexford).....		53 16
House-boat dredge fleet No. 1.....		17 72
Guard gates, bridge No. 61.....		35 44
Setting up stationary engine and taking out cribbing at dam No. 3, lock No. 7, Barge canal.....		53 19
Total.....		\$21,009 43

## REPAIRS AND IMPROVEMENTS.

Navigation on section has proceeded without interruption, excepting three days during dry spell, when heavily loaded boats found it difficult to proceed below Rexfords feeder owing to low water. But this was speedily overcome by raising dam at Rexfords.

Considerable difficulty has been experienced in keeping walls and towing-path in condition for navigation owing to the wash from small crafts. But the work has been accomplished with the regular force.

Several small leaks were discovered, but owing to the diligent work of bank watchman they were quickly checked.

On making spring repairs all locks and gates were carefully examined and thoroughly repaired, giving little trouble during the season.

Towing-path has been put in good condition (except where busy at present), having been scraped, cross-ditched, graveled and raised at many points.

All bridges have been examined and repairs made where necessary.

State scows have been caulked, painted and put in as good condition as possible.

About 2,500 feet of new docking has been laid during season, and the old repaired at many points on section.

During spring repairs canal was thoroughly cleaned, bars removed, walls relaid and prism put in best possible condition. Waste weirs and aqueducts were securely replaced and thoroughly caulked.

Grass, weeds and brush has been cut over entire section. Bridge approaches have been resurfaced with gravel, railings repaired and everything put in a safe condition for the protection of traffic.

J. T. WASSON,  
*Superintendent.*

ANNUAL REPORT, *showing the name and number of structures or works, the different heads of expenditures, and the cost of each, on section 3 of the Erie canal, under the charge of Oliver Hurst, superintendent of repairs, during the 166 days ended March 15, 1911.*

STRUCTURES OR WORKS, ETC.	Whole number on section.	Total expenditures.
Locks.....	7	.....
Lock-gates.....	28	.....
Aqueducts.....	7	.....
Waste-weirs.....	10	.....
Culverts.....	30	.....
Farm bridges (wood).....	47	.....
Lift bridges (iron).....	3	.....
Road bridges (iron).....	10	.....
State scows.....	5	.....
Ice breakers.....	2	.....
Lock-houses.....	7	.....
Work-shops.....	1	.....
Watch-houses.....	1	.....
Store-houses.....	2	.....
Watching canal.....	.....	\$32 00

OLIVER HURST,  
*Superintendent.*

ANNUAL REPORT, showing the name and number of structures or works, the different heads of expenditures, and the cost of each, on section 3 of the Erie canal, under the charge of Robert A. Probst, superintendent of repairs, during the 153 days ended September 30, 1911.

STRUCTURES OR WORKS, ETC.	Whole number on section.	Total expenditures.
Locks.....	7	\$998 09
Lock-tending (exclusive of oil).....		8,167 99
Lock-gates.....	28	
Aqueducts.....	7	1,218 62
Waste-weirs.....	10	
Culverts.....	30	
Farm bridges (wood).....	47	
Lift bridges (iron).....	3	
Road bridges (wood).....		1,051 37
Road bridges (iron).....	10	
State scows.....	5	
Ice breakers.....	2	
Lock-houses.....	7	
Work-shops.....	1	
Watch-houses.....	1	
Store-houses.....	2	
Raising and repairing tow-path and berme bank, not including repairs to slope walls.....		886 57
Slope wall and vertical.....		620 25
Watching canal.....		1,299 38
Feeder tender.....		348 39
Repairing feeder.....		247 63
Inspecting canal.....		137 50
Shop watch.....		200 00
Disbursing clerk.....		412 50
Total.....		\$15,638 29



## REPAIRS AND IMPROVEMENTS.

Repairs that were necessary were made to all the locks on this section.

Bridges have been repaired by inserting new needle beams and replanking where necessary.

The berme bank has been reinforced, and where it was necessary it was strengthened, about 2,600 feet in all.

The weeds along the banks of the canal have been cut.

The slope wall, on inner angle of the towing-path, has been repaired, and wash wall at point of water height relaid, about 3,600 feet.

About 1,900 lineal feet of timber docking has been replaced where it was necessary to preserve the embankment.

All bridge approaches have been graveled, and towing-path under the bridges raised.

Towing-path at various places, about 4,000 feet, has been raised and graveled.

The aqueducts and dams have been repaired.

The water has been kept at a normal height during the whole season, there being no delays to navigation.

ROBERT A. PROBST,  
*Superintendent.*

# REPORT OF SUPERINTENDENT OF PUBLIC WORKS. 129

ANNUAL REPORT, *showing the name and number of structures or works, the different heads of expenditures, and the cost of each, on section 4 of the Erie canal, under the charge of John McGraw, superintendent of repairs, during the 205 days ended September 30, 1911.*

STRUCTURES OR WORKS, ETC.	Whole number on section.	Total expenditures.
Repairs to locks, gates, bridges, etc. . . . .	11	\$2,255 66
Lock-tending (exclusive of oil) . . . . .		12,847 56
Lock-gates . . . . .	88	
Aqueducts, putting down . . . . .	5	281 00
Waste-weirs . . . . .	7	
Culverts . . . . .	6	
Farm bridges (wood) . . . . .	30	
Road bridges (wood) . . . . .	8	
Road bridges (iron) . . . . .	12	
State scows, repainting . . . . .	4	80 00
Ice breakers . . . . .	2	
Lock-houses . . . . .	2	
Work-shops . . . . .	2	
Watch-houses . . . . .	11	
Raising and repairing tow-path and berme bank, not including repairs to slope walls . . . . .		1,604 13
Cleaning out bottom of canal during spring repairs . . . . .		442 00
Cleaning on creeks . . . . .		95 00
Slope wall and vertical . . . . .		50 00
Watching canal, State property and feeder tender . . . . .		1,240 06
Disbursing clerk . . . . .		412 50
Single team . . . . .		137 50
Total . . . . .		\$19,445 41

JOHN MCGRAW,  
*Superintendent.*

ANNUAL REPORT, showing the name and number of structures or works, the different heads of expenditures, and the cost of each, on section 1 of Champlain canal, under charge of John Richmond, superintendent of repairs, during the 170 days ended March 19, 1911.

STRUCTURES OR WORKS, ETC.	Whole number on section.	Total expenditures.
Locks.....	11	.....
Lock-tending (exclusive of oil).....	.....	\$2,658 10
Lock-gates.....	44	.....
Aqueducts.....	1	.....
Waste-weirs.....	10	.....
Culverts.....	7	.....
Weigh-locks.....	1	.....
Farm bridges (wood).....	24	} 537 41
Farm bridges (iron).....	3	
Road bridges (wood).....	22	
Road bridges (iron).....	16	
Tow-path bridges (wood).....	1	
Waste-weir bridges.....	10	.....
State scows.....	3	.....
Collector's office.....	1	.....
Ice breakers.....	3	.....
Spillways.....	1	.....
Lock-houses.....	7	.....
Store-houses.....	1	.....
Raising and repairing tow-path and berme bank, not including repairs to slope walls.....	.....	782 69
Dams (feet ).....	3	.....
Watching canal.....	.....	805 90
Disbursing clerk.....	.....	120 00
Single horse.....	.....	74 00
Publishing and filing abstracts.....	.....	8 13
Total.....	.....	\$4,986 23

JOHN RICHMOND,  
Superintendent.

ANNUAL REPORT, showing the name and number of structures or works, the different heads of expenditures, and the cost of each, on section 1 of Champlain canal, under charge of Wm. H. Hickey, superintendent of repairs, during the 194 days ended September 30, 1911.

STRUCTURES OR WORKS, ETC.	Whole number on section.	Total expenditures.
Locks.....	11	.....
Dams.....	3	.....
Aqueduct.....	1	.....
Lock gates.....	44	.....
Waste-weirs.....	10	.....
Culverts.....	7	.....
Weigh locks.....	1	.....
Tow-path bridges.....	1	.....
Farm bridges (wood).....	24	.....
Road bridges (wood).....	22	.....
Road bridges (iron).....	16	.....
Farm bridges (iron).....	3	.....
Waste-weir bridges.....	10	.....
State scows.....	3	.....
Collector's office.....	1	.....
Ice breakers.....	3	.....
Spillways.....	1	.....
Lock houses.....	7	.....
Store houses.....	1	.....
Lock tending.....		\$6,371 70
Lift-bridge tending.....		635 73
Bridge watching.....		428 39
Bank watching.....		1,130 34
Bank watch and horse.....		728 22
Water watch.....		250 00
Disbursing clerk.....		360 00
Single team.....		240 00
Weigh lock tending.....		636 64
Carpenter work.....		2,078 43
Raising and repairing tow-path.....		1,999 41
Painting State scows, W. G. Robinson and C. E. Treman.....		67 50
Cleaning prism of canal.....		693 75
Repairs to vertical and slope wall.....		161 00
Publishing abstract.....		26 70
Filing abstract.....		1 86
<b>Total.....</b>		<b>\$15,809 67</b>

## REPAIRS AND IMPROVEMENTS.

## LOCKS.

During spring repairs all locks were overhauled, connecting rods straightened, new bolts put in where needed and minor repairs made to all locks. New gates were put in lock 5 and Sloop lock, and new balance beams in locks 5 and 7.

## BRIDGES.

During the season bridges all along the section have been overhauled; new needle beams put in bridges 28, 32, 33, 45, 55 and 66, and approaches to several repaired and put in good condition. New sidewalk and stairway were put in Mechanicville lift bridge.

## DOCKING.

Old dock sticks were taken out and new ones put in at different points all along the section.

## FEEDERS.

During spring repairs all feeders were overhauled, repairs made where necessary and cleaned out.

## WASTE WEIRS.

All waste weirs thoroughly overhauled, pointed and repaired where necessary and cleaned.

## PRISM OF CANAL.

During spring cleaning bars were removed from various places all along section, and the prism put in good shape.

## STATE SCOWS.

The "C. E. Treman" and "W. G. Robinson" were thoroughly overhauled, caulked and painted.

## CUTTING BRUSH.

During the season all weeds, brush, etc., were cut, piled and burned.

## DREDGING.

The State dredge was used to good advantage in cleaning out lock No. 10, and at different places along the section.

## TOW-PATH.

The tow-path has been kept in excellent condition by the State boat crews; rolling, scraping and strengthening the banks.

## VERTICAL WALL.

Vertical and slope walls were repaired at different points all along the section.

## COHOES DAM.

This dam is in a bad condition, the steel sheeting and concrete apron for about half the length has been torn out by the ice, and I find that some of the steel sheeting on the crest is bad and moved in many places, also many places on the upperside the paving has been torn out. To put this dam in a safe condition a new concrete apron, paving replaced where it is gone, should be done another season, as this dam is a very important feeder to the Erie canal between Cohoes and Albany.

WM. H. HICKEY,

*Superintendent.*

ANNUAL REPORT, *showing the name and number of structures or works, the different heads of expenditures, and the cost of each, on section 2 of the Champlain canal, under the charge of Patrick O'Grady, superintendent of repairs, during the 160 days ended March 9, 1911.*

STRUCTURES OR WORKS, ETC.	Whole number on section.	Total expenditures.
Locks.....	19	\$245 50
Lock-tending (exclusive of oil).....	.....	3,400 00
Lock-gates.....	64	33 00
Aqueducts.....	3	.....
Waste-weirs.....	3	.....
Culverts.....	9	.....
Sluices.....	8	.....
Farm bridges (wood).....	11	} 369 88
Road bridges (wood).....	27	
Road bridges (iron).....	9	
Tow-path bridges (wood).....	5	
Foot bridges.....	21	.....
State scows.....	2	.....
Small boats.....	1	.....
Ice breakers.....	2	.....
Lock-houses.....	16	.....
Work-shops.....	1	.....
Watch-houses.....	1	.....
Timber-sheds.....	3	.....
Piling machines.....	1	.....
Raising and repairing tow-path and berme bank, not including repairs to slope walls.....	.....	1,005 00
Dams (feet, 900).....	1	.....
Watching canal.....	.....	863 66
Foreman.....	.....	150 50
Disbursing clerk.....	.....	120 00
Single horse.....	.....	7 50
Publishing and filing abstracts.....	.....	12 63
Total.....	.....	\$6,207 67

PATRICK O'GRADY,  
*Superintendent.*

ANNUAL REPORT, *showing the name and number of structures or works, the different heads of expenditures, and the cost of each, on section 2 of the Champlain canal, under the charge of John Toole, superintendent of repairs, during the 205 days ended September 30, 1911.*

STRUCTURES OR WORKS, ETC.	Whole number on section.	Total expenditures.
Locks.....	19	\$363 25
Lock-tending (exclusive of oil).....		9,430 94
Lock-gates.....	64	355 25
Aqueducts.....	3	.....
Waste-weirs.....	3	175 25
Culverts.....	9	.....
Sluices.....	8	109 75
Farm bridges (wood).....	11	.....
Road bridges (wood).....	27	514 25
Road bridges (iron).....	9	.....
Tow-path bridges (wood).....	5	.....
Foot bridges.....	21	30 00
State scows.....	2	49 00
Small boats.....	1	.....
Ice breakers.....	2	.....
Lock-houses.....	16	.....
Work-shops.....	1	11 50
Watch-houses.....	1	.....
Timber-sheds.....	3	.....
Piling machines.....	1	.....
Raising and repairing tow-path and berme bank, not including repairs to slope walls.....		3,141 60
Cleaning out bottom of canal during spring repairs.....		712 25
Removing obstructions from navigation.....		161 00
Dams (feet, 900).....	1	.....
Vertical walls.....		391 10
Docking.....		138 25
Repairs of leaks.....		34 50
Watching canal.....		2,207 58
Other miscellaenous expenditures.....		610 00
Disbursing clerk.....		360 00
Publishing and filing.....		14 14
Total.....		\$18,809 61



## REPAIRS AND IMPROVEMENTS.

During the season new balance beams have been placed on locks Nos. 3 and 4, Glens Falls feeder.

Part of the concrete bottom in lock No. 8, Glens Falls feeder, was removed, owing to a break, and was replanked.

New needle beams were put in bridges Nos. 82, 85, 89, 90 and 92, Champlain canal. All other bridges on section were replanked and repaired wherever it was needed.

During the season we have had five sunken boats — one loaded with coal, three with lumber and one with pulp. The boat loaded with pulp was raised with steam pump and placed on the dry-dock at Moses Kill, without interfering with navigation.

The State scows "W. A. Huppuch" and "W. G. Robinson" were overhauled and painted.

The State dredge was used to clean out locks Nos. 11 and 15, Champlain canal.

A new foot bridge was erected on the Glens Falls feeder opposite the Glens Falls Portland Cement Company's plant.

## NAVIGATION.

The water has been very low in the Hudson river, causing a great deal of trouble in keeping the levels up for navigation. With careful watching, and brackets on each waste weir, we have been able to keep normal levels on the Champlain canal. We find the greatest difficulty on the Glens Falls feeder owing to the leaks.

JOHN TOOLE,  
*Superintendent.*

ANNUAL REPORT, showing the name and number of structures or works, the different heads of expenditures, and the cost of each, on section 3 of the Champlain canal, under the charge of George Neddo, superintendent of repairs, during the 170 days ended March 19, 1911.

STRUCTURES OR WORKS, ETC.	Whole number on section.	Total expenditures.
Locks.....	7	.....
Lock-tending (exclusive of oil).....	.....	\$1,399 86
Lock-gates.....	16	.....
Waste-weirs.....	8	63 12
Culverts.....	3	.....
Farm bridges (wood).....	16	} 405 00
Farm bridges (iron).....	7	
Road bridges (wood).....	5	
Road bridges (iron).....	2	
Tow-path bridges (wood).....	2	
Tow-path bridges (iron).....	2	.....
State scows.....	2	.....
Ice breakers.....	2	.....
Lock-houses.....	4	.....
Work-shops.....	1	.....
Watch-houses.....	1	.....
Raising and repairing tow-path and berme bank, not including repairs to slope walls.....	.....	617 36
Dams (feet, 75).....	1	.....
Watching canal.....	.....	676 63
Single horse.....	.....	51 34
Disbursing clerk.....	.....	120 00
Publishing and filing abstracts.....	.....	7 11
Total.....	.....	\$3,340 42

GEORGE NEDDO,  
Superintendent.

ANNUAL REPORT, showing the name and number of structures or works, the different heads of expenditures, and the cost of each, on section 3 of the Champlain canal, under the charge of E. M. Finch, superintendent of repairs, during the 194 days ended September 30, 1911.

STRUCTURES OR WORKS, ETC.	Whole number on section.	Total expenditures.
Locks.....	5	\$871 00
Lock-tending (exclusive of oil).....		6,216 71
Lock-gates.....	16	.....
Waste-weirs.....	3	22 00
Farm bridges (wood).....	16	.....
Farm bridges (iron).....	2	730 90
Road bridges (wood).....	4	.....
Road bridges (iron).....	2	.....
Tow-path bridges (wood).....	1	.....
State scows.....	2	132 00
Ice breakers.....	1	.....
Lock-houses.....	4	.....
Work-shops.....	1	.....
Store-houses.....	1	.....
Raising and repairing tow-path and berme bank, not including repairs to slope walls.....		1,703 34
Cleaning out bottom of canal during spring repairs.....		564 75
Sheet piling, planking piles and placing buoys in canal.....		558 88
Scraping tow-path.....		77 50
Removing bars.....		135 00
Cleaning bridges, tending waste-weirs, etc.....		188 39
Watching canal.....		1,289 93
Publishing and filing abstracts.....		26 12
Inspecting canal—single horse.....		487 50
Clerical work—disbursing clerk.....		360 00
Moving lockhouses, placing snubbing posts, loading lumber on boats, ditching, etc.....		175 20
Total.....		\$13,539 22

## REPAIRS AND IMPROVEMENTS.

Necessary repairs were made on the locks of the section.

All the bridges on the section have been repaired, new needle beams, planking, etc., being supplied where necessary.

The lock houses at Whitehall and Comstock were moved and repaired, and that at Fort Ann put in good order.

There were six sunken boats on the section during the year, but all were raised without delaying navigation to any extent.

No serious break or leak has occurred on the section to interrupt navigation.

I would recommend that a new scow be supplied for the use of the carpenter force, as repairs would not materially benefit the boat the crew is now using.

I would also recommend, for the benefit of navigation, the dredging of the old canal from Smith's Basin to the Bailey waste weir, as the banks have become so badly washed by the traffic of tugs that it is very difficult for two loaded boats to pass each other.

E. M. FINCH,  
*Superintendent.*

# MIDDLE DIVISION.

---

SYRACUSE, N. Y., *February 10, 1911.*

HON. C. E. TREMAN, *Superintendent of Public Works, Albany, N. Y.:*

DEAR SIR.—Following you will please find a detailed summary of repairs and improvements made on the Middle Division of the New York State canals from January 1, 1911, to February 10, 1911:

## MIDDLE DIVISION.

Repairs to dredge fleet.

Enlarging machine shop.

### SECTION 5, ERIE CANAL.

Repairs to Schuyler street bridge, Utica.

Repairs to Washington street bridge, Utica.

Repairs to power house of Genesee street bridge, Utica.

Building two highway bridges.

Removing ice from underneath the arches of Oriskany aqueduct.

### SECTION 6, ERIE CANAL.

Repairs to West Genesee street bridge, Syracuse.

Repairs to West street bridge, Syracuse.

Repairs to Clinton street bridge, Syracuse.

Repairs to South Salina street bridge, Syracuse.

Repairs to State street bridge, Syracuse.

Repairs to Catherine street bridge, Syracuse.

Repairs to Willow street bridge, Syracuse.

Repairs to Bascule bridge, Syracuse.

Repairs to bridge over Jamesville reservoir feeder.

Repairs to lock No. 47.

Repairs to lock No. 49.

Repairs to Chittenango aqueduct.

Strengthening tow-path at Hedson's Landing.

### *Black River Canal.*

Repairs to Randall's road bridge at lock No. 86.

Repairs to Macomber's bridge at lock No. 22.

Repairs to Adams' bridge at Hyland's mills.

CHAS. C. BARRETT,  
*Assistant Superintendent.*

SYRACUSE, N. Y., *January 1, 1912.*

HON. C. E. TREMAN, *Superintendent of Public Works, Albany, N. Y.:*

Dear Sir.—The report for the Middle Division of the New York State Canals for the period beginning February 11, 1911, and ended December 31, 1911, is herewith respectfully submitted.

The Middle Division comprises three sections of the Erie canal, 5, 6 and 7, covering about 97 miles in distance; the Black River canal, covering a distance of 78 miles; the Oswego canal, 38 miles in length, and the Cayuga and Seneca canal, covering a distance of 23 miles of canal proper. While Cayuga and Seneca lakes are not, strictly speaking, portions of the canal system of the State, both are navigated to quite an extent by canal boats, and at either end are inlets and outlets designed and maintained by State authority for the benefit and convenience of canal traffic.

The aggregate length of navigable canals and rivers upon this division, including 67 miles of side-cuts and navigable feeders, is 303 miles. There are 159 locks, 23 aqueducts, 137 culverts, 148 waste weirs and spillways, 42 dams, 455 bridges, 6 section and 1 division repair shops.

The care and management of the Middle Division came to the undersigned by your appointment on February 11 last. Little could be learned by observation at that early date as to the physical condition of the canals, but as soon as weather conditions permitted, a careful and thorough inspection covering the whole division was made.

The estimates for work necessary to be done in order to place the canals in a safe and navigable condition were based on such inspection, and on April 1st the bottoming out of the prism of the canal was begun and the repair of structures and banks pushed vigorously at all points up to the opening of the canals on May 15th.

The water supply has been abundant during the entire season and the levels have been maintained at normal height.

The State dredge fleet has been busily engaged since the opening of navigation in removing sand bars and other obstructions to navigation. Excellent service was rendered by the pump boat in raising sunken boats, taking them to dry dock, and in other ways assisting navigation.

With the exception of the delays on the Black River canal, there has been uninterrupted navigation the entire season. On June 3rd, the embankments put in by the contractors for barge canal contract No. 55 at the old railroad aqueduct, just above lock No. 13, Black River canal, failed. The contractors were directed to proceed at once with the necessary repair work, which they did, but on June 5th they stopped work, claiming that they were not responsible for the break. The contractors were notified that the State would take charge of the work and the cost thereof be charged against their contract. The work of restoring the bank was resumed with department forces and navigation opened June 15th. On July 7th, the towing path wall of lock No. 42, Black River canal, this being the middle lock of the three combined locks, caved in. Repairs were started at once and navigation resumed July 19th. On July 26th, all four gates of lock No. 13, Black River canal, went out. New gates were installed and navigation resumed on August 2nd.

I desire particularly to call your attention to the insufficient strength of the highway and lift bridges crossing the feeders and canals for carrying the present day steam road rollers and automobile trucks. These bridges were not designed nor intended to carry the weight of such heavy traffic. The development of the motor truck for commercial use has grown so rapidly, covering only some two or three years, that it would have been impossible within that period for the State to replace the present bridges with structures of stronger design, even though the department had sufficient funds to carry on the improvement. Inasmuch as the replacing of these bridges would involve the expenditure of many thousands of dollars and in view of the danger from the failure of many of the present bridges with consequent injury or loss of life to persons and damage to property, I would recommend that this matter be brought to the attention of the Legislature for inquiry and for such action as is deemed necessary.

I wish to express to the many employees on this division my appreciation for their efficient and prompt services during the season just passed.

Following is a detailed summary of the repairs made.

## GENERAL IMPROVEMENTS ON THE MIDDLE DIVISION OF THE NEW YORK STATE CANALS, FROM FEB- RUARY 11, 1911, TO DECEMBER, 31, 1911.

### MIDDLE DIVISION.

Repairs to dredge fleet.  
Enlarging machine shop.  
Repairs to fence at State yard at Syracuse.

#### *Section 5 — Erie Canal.*

Repairs to Peterboro street bridge at Canastota.  
Repairs to Schuyler street bridge at Utica.  
Repairs to Whitesboro street bridge at Utica.  
Repairs to Washington street bridge at Utica.  
Repairs to Hotel street bridge at Utica.  
Repairs to Genesee street bridge at Utica.  
Repairs to John street bridge at Utica.  
Repairs to power house for Genesee street bridge, Utica.  
Repairs to Broad street bridge at Utica.  
Building two highway bridges.  
Removing ice from underneath arches of Oriskany aqueduct.  
Repairs to spillway at Rome.  
Rebuilding fence at Bradley Brook reservoir.  
Repairs to gates in Chenango dam.  
Painting bridges and fences along the southern reservoirs and feeders.  
Graveling tow-path between Teft's farm bridge No. 31 and Stanwix road bridge No. 32.  
Ditching between Higginsville and Dunbarton.  
Repairs to leak in canal at Durhamville aqueduct.



Repairs to leak in sidecut at Higginsville.  
 Cleaning out sand bar in Oneida feeder.  
 Repairs to bridge across Madison reservoir feeder.

*Section 6 — Erie Canal.*

Repairs to West Genesee street bridge, Syracuse.  
 Repairs to Geddes street bridge, Syracuse  
 Repairs to West street bridge, Syracuse.  
 Repairs to Clinton street bridge, Syracuse.  
 Repairs to South Salina street bridge, Syracuse.  
 Repairs to State street bridge, Syracuse.  
 Repairs to Catherine street bridge, Syracuse.  
 Repairs to Willow street bridge, Syracuse.  
 Repairs to Bascule bridge, Syracuse.  
 Repairs to bridge over feeder at Jamesville reservoir.  
 Repairs to lock No. 47.  
 Repairs to lock No. 48.  
 Repairs to lock No. 49.  
 Repairs to lock No. 50.  
 Repairs to lock No. 1, Oswego canal.  
 Repairs to lock No. 2, Oswego canal.  
 Repairs to lock No. 5, Oswego canal.  
 Repairs to guard lock east of Syracuse.  
 Repairs to Chittenango aqueduct.  
 Strengthening tow-path bank at Hedson's Landing.  
 Cutting weeds and brush at DeRuyter reservoir.  
 Strengthening bank and building fence at Erieville reservoir.  
 Painting bridges and fences along the southern reservoirs and feeders.  
 General repairs to bridges over feeders and reservoirs.  
 Cleaning under culvert at Canastota between Main and Peterboro streets.  
 Cleaning under Canaseraga culvert.  
 Graveling tow-path between West and West Genesee streets, Syracuse.  
 Cleaning out State ditches.  
 Raising bank and cleaning out Chittenango feeder.

Rebuilding Newport bridge near Warners.  
 Repairs to Park street bridge.  
 Repairing washout in bank of Chittenango feeder.  
 Raising spillway at Amos mill.  
 Repairing vertical wall of Oswego canal at intersection of Erie.  
 Relaying wall just west of Geddes street bridge.  
 Repairing canal wall at Kirkville.  
 Repairing leaks in canal wall in Syracuse.  
 Cutting weeds on banks of canal near Chittenango.  
 Rebuilding wall near Hiawatha avenue, Syracuse.  
 Repairing gates in Camillus feeder.  
 Building fence both side of canal, Clinton Square, Syracuse.

*Section 7 — Erie Canal.*

Repairs to change bridge at Montezuma.  
 Rebuilt highway bridge No. 120.  
 Cleaning out State ditches.  
 Repairs to culvert No. 75 at Montezuma.

*Oswego Canal.*

Repairs to lock No. 5 at Baldwinsville.  
 Repairs to lock No. 14.  
 Repairs to change bridge at Hinmansville.  
 Repairs to bulkhead at Battle Island near Fulton.  
 Installing apparatus to operate crest of dam at Baldwinsville.  
 Repairs to lock at Oak Orchard.  
 Repairs to high dam near Oswego.  
 Repairs to leak in dyke between river and canal at Caughdenoy.  
 Repairs to division wall at Oswego between river and canal.  
 Making general repairs to Oswego canal and getting same in condition for navigation.  
 Getting canal on site of contract No. 35 ready for navigation.  
 Installing machinery for the temporary operation of barge canal locks Nos. 1 and 2.  
 Getting canal on site of barge canal contract No. 10 at Fulton ready to open for navigation.  
 Towing boats through the city of Fulton.

Repairs to gates in hydraulic race at Baldwinsville.  
Repairs to lock gates at Battle Island.  
Repairs to head gates, hydraulic canal, at Fulton.  
Repairs to Phoenix bridge.

*Cayuga and Seneca Canal.*

Cutting eel grass in canal.

*Black River Canal.*

Cleaning prism of Forestport feeder.  
Rebuilding lock No. 67.  
Repairs to lock No. 3.  
Building dam across canal at north end of contract No. 55.  
Repairs to break in towing path at junction of old canal and north end of new canal, contract No. 55.  
Repairs to break in lock No. 42.  
Installing four new gates in lock No. 13.  
Cleaning underneath Hall, Utley and Westernville culverts.  
Repairs to Woodhull reservoir.  
Repairs to South Lake road.  
Repairs to Sand Lake road.  
Repairs to North Lake reservoir.  
Repairs to North Lake road.  
Building and repairing chimneys on lock houses.  
Rebuilding the combined locks, Nos. 41, 42 and 43.  
Replanking Castorland bridge.

*Special Appropriations.*

Improvement of Cayuga inlet at Ithaca, N. Y.  
Improving Black River canal north of Boonville.  
Repairs to dyke and building new lighthouse at Watkins, N. Y.  
Improvement of Black River canal between Rome and Boonville.  
Replanking East Fourth street bridge at Watkins.  
Driving piles in harbor of Seneca lake at Geneva.

A financial table showing the total expenditures for ordinary repairs from February 11, 1911, to the close of the fiscal year, September 30, 1911, is appended hereto.

D. W. PECK,

*Assistant Superintendent.*

DETAILED STATEMENT of expenditures on the Middle Division of the canals, by Chas. C. Barrett, Assistant Superintendent of Public Works, from October 1, 1910, to February 10, 1911, inclusive.

FOR WHAT EXPENDED.	ERIE CANAL.				Middle Division.	Oswego.	Cayuga and Seneca.	Black River.	Office Expense.	Totals.
	Section 5.	Section 6.	Section 7.							
Blacksmithing.....	\$63 74		\$3 80		\$24 14		\$33 38			\$125 06
Machine work for lift bridges.....	248 62	\$41 59 154 67	12 80		608 98	\$18 00	234 05	\$16 40		41 59 1,293 52
Coal for all purposes.....										
Hardware, rope, castings, rubber goods, etc.....	706 98	1,526 53	186 45		2,152 44	89 89	300 60	279 10		5,241 99
Oils, paints, etc.....	73 08	121 46	30 78		130 27	2 25	43 16	18 00		419 00
Lumber for structures.....	1,667 54	3,427 28	1,729 64		1,436 13	1,351 51	2,640 57	5,673 37		17,976 04
Labor and team work.....	2,899 79	3,359 53	91 20		9,918 24	146 44	901 09	3,875 79		21,182 08
Reservoir and feeder tenders.....	427 50	427 50	67 50				80 00	648 00		1,685 50
Stone, sand, lime, cement, etc. Stationery, stamps, light, heat, water, etc.....	114 30	220 04						32 00		1,366 34
Clerks and stenographers.....	9 20	42 49			12 00	16 21	1 52	11 70	\$244 15 1,289 71	337 27 1,289 71
Traveling expenses, express, telephone, telegraph and freight.....	278 38	77 25	29 18		538 88	350 98	100 87	272 99	273 29	1,921 82
Equipment.....					588 00					
	\$6,534 13	\$9,398 34	\$2,151 35		\$15,759 08	\$1,975 28	\$4,335 24	\$10,827 35	\$1,897 15	\$52,787 92

DETAILED STATEMENT of expenditures on the Middle Division of the canals, by Duncan W. Peck, Assistant Superintendent of Public Works, from February 11, 1911, to September 30, 1911, inclusive.

FOR WHAT EXPENDED.	ERIE CANAL.			Middle Division.	Oswego.	Cayuga and Seneca.	Black River.	Office Expense.	Totals.
	Section 5.	Section 6.	Section 7.						
Blacksmithing..... for lift	\$146 26			\$19 14					\$165 40
Machine bridges.....		\$99 72							99 72
Coal for all purposes.....	27 50	294 65		706 58	2 55	32 20	\$39 12		1,102 60
Hardware, rope, castings, rubber goods, etc.....	628 83	1,235 95	\$309 84	2,717 06	496 48	205 77	721 92		6,315 85
Oil, paints, etc.....	60 37	168 30	57 87	606 40		4 55	32 00		929 49
Lumber for structures.....	1,690 19	163 33	299 24	3,084 31	89 82		733 34		6,060 23
Reservoir and feeder tenders.....	840 00	760 00	125 00			21 94	1,193 87		2,940 81
Stone, sand, lime, cement, etc.	31 32	455 71	11 90	120 65	95 07	54 00	843 40		1,612 05
Stationery, stamps, light, heat, water, etc.....	5 00	2 12		10 00		56 34	28 55	\$262 13	409 44
Labor and team work.....	1,525 63	7 667 06	305 02	16,446 27	4,684 87	437 32	4,449 51		35,515 68
Clerks and stenographers.....								2,399 72	2,399 72
Traveling expenses, express, freight, telephone, telegraph and equipment.....	158 28	32 88	45 00	699 97	341 81	74 67	216 07	314 66	1,859 04
				2,064 00			62 40		2,171 40
	\$5,113 38	\$10,879 72	\$1,174 57	\$26,474 38	\$5,755 90	\$886 79	\$8,320 18	\$2,976 51	\$61,581 43

ANNUAL REPORT, showing the name and number of structures or works, the different heads of expenditures, and the cost of each, on section 5 of the Erie canal, under the charge of D. F. Brietenstein, superintendent of repairs, during the 112 days ended January 20, 1911.

STRUCTURES OR WORKS, ETC.	Whole number on section.	Total expenditures.
Locks.....	1	.....
Lock-tending (exclusive of oil).....	.....	\$450 00
Lock-gates.....	8	.....
Aqueducts.....	3	.....
Waste-weirs.....	4	.....
Culverts.....	38	.....
Farm bridges (iron).....	.....	864 62
Road bridges (iron).....	86	.....
State scows.....	2	.....
Small boats.....	1	.....
Ice breakers.....	1	.....
Lock-houses.....	1	.....
Work-shops.....	2	.....
Watch-houses.....	1	.....
Store-houses.....,.....	1	.....
Timber-sheds.....	1	.....
Raising and repairing tow-path and berme bank, not including repairs to slope walls.....	.....	374 96
Unloading and sorting lumber.....	.....	55 46
Disbursing clerk.....	.....	187 50
Docking.....	.....	319 91
Publishing abstracts.....	.....	10 50
Watching canal.....	.....	701 67
Cleaning office.....	.....	21 00
Team for superintendent going over section.....	.....	46 90
Care of and repairs to lift bridges.....	.....	130 00
Tending Hotel Street lift bridge.....	.....	496 14
Placing barriers to prevent driving on tow path.....	.....	7 00
Watching State shop.....	.....	117 25
Cpening ditches.....	.....	108 40
Total.....	.....	\$3,891 31

D. F. BREITENSTEIN, *Superintendent.*

ANNUAL REPORT, showing the name and number of structures or works, the different heads of expenditures, and the cost of each, on section 5 of the Erie canal, under the charge of Joseph F. Burke, superintendent of repairs, during the 204 days ended September 30, 1911.

STRUCTURES OR WORKS, ETC.	Whole number on section.	Total expenditures.
Locks.....	1	.....
Lock-tending (exclusive of oil).....	.....	\$1,228 06
Lock-gates.....	8	88 83
Aqueducts.....	3	76 33
Waste-weirs.....	4	.....
Culverts.....	38	.....
Road bridges (iron).....	86	1,227 95
State scows.....	2	.....
Small boats.....	1	.....
Ice breakers.....	1	.....
Lock-houses.....	1	.....
Work-shops.....	2	.....
Watch-houses.....	1	.....
Store-houses.....	1	.....
Timber-sheds.....	1	.....
Raising and repairing tow-path and berme bank, not including repairs to slope walls.....	.....	1,114 16
Cleaning out bottom of canal during spring repairs.....	.....	1,015 00
Cleaning on creeks.....	.....	304 29
Slope wall and vertical wall.....	.....	891 40
Docking.....	.....	349 49
Watching canal.....	.....	1,637 41
Removing lumber, Utica to Rome.....	.....	73 92
Removing wreck of bridge No. 13.....	.....	36 96
Raising sunken boats.....	.....	73 07
Cutting and mowing grass and weeds.....	.....	771 08
Bottoming out side cut and repairing leak, Higginsville.....	.....	105 46
Team for superintendent.....	.....	141 40
Cleaning office.....	.....	42 00
Tending Hotel Street lift bridge.....	.....	1,355 55
Feeder tending.....	.....	260 16
Disbursing clerk.....	.....	450 00
Publishing abstracts.....	.....	26 40
Care of and repair to lift bridges.....	.....	1,508 05
Watchman at State shop.....	.....	218 75
Setting snubbing posts.....	.....	82 46
Total.....	.....	\$13,078 18

ANNUAL REPORT, showing the name and number of structures or works, the different heads of expenditures, and the cost of each, on section 6 of the Erie canal, under the charge of E. J. Clark, superintendent of repairs, during the 141 days ended February 18, 1911.

STRUCTURES OR WORKS, ETC.	Whole number on section.	Total expenditures.
Locks.....	8	.....
Lock-tending (exclusive of oil).....	.....	\$2,400 00
Lock-gates.....	51	82 94
Aqueducts.....	4	.....
Waste-weirs.....	8	.....
Culverts.....	26	.....
Weigh-locks.....	1	.....
Farm bridges (wood).....	6	1,050 91
Road bridges (wood).....	13	
Road bridges (iron).....	39	
Tow-path bridges (wood).....	2	
Tow-path bridges (iron).....	3	
State scows.....	2	.....
Lock-houses.....	8	.....
Store-houses.....	1	.....
Stacking lumber at State yard.....	.....	77 43
Slope wall.....	.....	340 66
Repairs of breaches.....	.....	61 94
Watching canal.....	.....	920 00
Team for superintendent over section..	.....	40 00
Publishing and filing.....	.....	14 43
Disbursing clerk.....	.....	225 00
Setting snubbing posts.....	.....	30 96
Total.....	.....	\$5,244 27

E. J. CLARK,  
Superintendent.



ANNUAL REPORT, showing the name and number of structures or works, the different heads of expenditures, and the cost of each, on section 6 of the Erie canal, under the charge of Wm. H. O'Brien, superintendent of repairs, during the 224 days ended September 30, 1911.

STRUCTURES OR WORKS, ETC.	Whole number on section.	Total expenditures.
Locks.....	8	\$913 85
Lock-tending (exclusive of oil).....		6,549 67
Lock-gates.....	51	110 35
Aqueducts.....	4	.....
Waste-weirs.....	8	.....
Culverts.....	26	.....
Weigh-locks.....	1	.....
Farm bridges (wood).....	6	} 1,283 34
Road bridges (wood).....	13	
Road bridges (iron).....	39	
Tow-path bridges (wood).....	2	
Tow-path bridges (iron).....	3	
State scows.....	2	.....
Lock-houses.....	8	20 97
Regulating water lock 50.....		4 00
Store-houses.....	1	.....
Pumping out scow.....		2 40
Raising and repairing tow-path and berme bank, not including repairs to slope walls.....		441 72
Cleaning out bottom of canal during spring repairs.....		805 68
Slope wall.....		870 21
Watching canal.....		2,638 07
Graveling tow-path.....		294 21
Disbursing clerk.....		450 00
Team for superintendent.....		120 00
Cutting weeds and brush.....		932 80
Publishing and filing.....		26 82
Vertical wall relaying.....		514 10
Total.....		\$15,978 19

## REPAIRS AND IMPROVEMENTS.

*Wall Repairs.*

Approximately 200 lineal feet of vertical wall was relaid in cement. General repairs were made to all walls along the Erie and Oswego canals. The walls between West Genesee street bridge and Camillus on the Erie canal were raised and strengthened.

*Repointing.*

The Erie canal locks Nos. 47, 48, 49 and 50, the Oswego canal locks Nos. 1, 2, 3 and 5, and the berme bank wall between Clinton and West street bridges were repointed.

*Bank Repairs.*

The banks on the Oswego canal between Syracuse and lock No. 5, and the berme bank between locks Nos. 47 and 48 on the Erie canal, and locks Nos. 1 and 2 on the Oswego canal, were raised and strengthened.

*Bridge Repairs.*

General repairs have been made to all bridges on this section by strengthening, replanking and overhauling the machinery. All bridge houses were repainted.

*Lock Repairs.*

General repairs have been made to all locks on this section. The lock wells have been cleaned out and lock paddles reelected. The machinery has been overhauled as much as possible from time to time.

*Cleaning Canal.*

The canal bottom of the Erie and the Oswego canals through the city of Syracuse was cleaned out, the bars under the bridges were taken out and the dirt and rubbish removed and hauled away.

*Cutting Weeds and Brush.*

The weeds and brush have been cut on both sides of the Erie and Oswego canals and the feeders along the entire section.

*Towing Path.*

Broken stone has been spread and rolled on the towing path between West Genesee street and West street bridges. The towing path has been graveled through the city of Syracuse and general repairs have been made to it throughout the entire section.

*Scows.*

The two scows on this section have been repainted.

*Docking.*

Minor repairs have been made to all docks along the entire section.

## RECOMMENDATIONS.

The towing-path in general through the city of Syracuse needs raising and graveled. The walls of the canal throughout this section are in bad condition in many places.

I have found the lock gates, balance beams and operating machinery of the different locks in a very dilapidated condition, and will make an effort to remedy this as much as possible during the closed season of navigation.

In consequence of the increasing traffic with heavy motor trucks and so forth, I find that the floors of many of the bridges are not strong enough to withstand such heavy traffic. I also wish to mention the fact that the bridge in the village of Solvay, known as the Matthews bridge, although apparently in sound condition, is entirely too light a structure to withstand the heavy traffic.

I would recommend new coping on the berme bank side of the Erie canal between locks No. 48 and 49 and along Greenway's brewery.

W. H. O'BRIEN,  
*Superintendent.*

ANNUAL REPORT, *showing the name and number of structures or works, the different heads of expenditures, and the cost of each, on section 7 of the Erie canal, under the charge of Albert B. Hallett, superintendent of repairs, during the 159 days ended March 8, 1911.*

STRUCTURES OR WORKS, ETC.	Whole number on section.	Total expenditures.
Locks.....	2	.....
Lock-tending (exclusive of oil).....	.....	\$900 00
Lock-gates.....	16	.....
Aqueducts.....	5	.....
Waste-weirs.....	3	.....
Culverts.....	21	.....
Farm bridges (wood).....	3	} 269 21
Farm bridges (iron).....	1	
Road bridges (wood).....	8	
Road bridges (iron).....	14	
Tow-path bridges (wood).....	2	
State scows.....	2	.....
Ice breakers.....	1	.....
Lock-houses.....	2	.....
Work-shops.....	1	.....
Watch-houses.....	2	.....
Raising and repairing tow-path and berme bank, not including repairs to slope walls.....	.....	987 19
Dams (feet, 257).....	4	.....
Docking.....	.....	147 90
Watching canal.....	.....	596 66
Disbursing clerk.....	.....	150
Livery for paying off.....	.....	10
Livery for superintendent to go over section.....	.....	10
Looking after tools, etc.....	.....	32
Publishing and filing abstracts.....	.....	9
Total.....	.....	\$3,113 37

ALBERT B. HALLETT,  
*Superintendent.*

ANNUAL REPORT, showing the name and number of structures or works, the different heads of expenditures, and the cost of each, on section 7 of the Erie canal, under the charge of Chas. E. Whitman, superintendent of repairs, during the 205 days ended September 30, 1911.

STRUCTURES OR WORKS, ETC.	Whole number on section.	Total expenditures.
Locks.....	2	\$127 60
Lock-tending (exclusive of oil).....		2,456 12
Lock-gates.....	16	38 50
Aqueducts.....	5	305 63
Waste-weirs.....	3	.....
Culverts.....	21	193 30
Farm bridges (wood).....	3	808 40
Farm bridges (iron).....	1	
Road bridges (wood).....	8	
Road bridges (iron).....	14	
Tow-path bridges (wood).....	2	
State scows.....	2	.....
Ice breakers.....	1	.....
Lock-houses.....	2	.....
Work-shops.....	1	.....
Watch-houses.....	2	.....
Raising and repairing tow-path and berme bank, not including repairs to slope walls.....		1,283 00
Cleaning out bottom of canal during spring repairs.....		523 89
Dams (feet, 257).....	4	.....
Slope wall.....		164 55
Docking.....		290 30
Watching canal.....		1,027 74
Disbursing clerk.....		412 50
Publishing and filing abstracts.....		20 15
Repairs to feeders.....		38 10
Making and setting new snubbing posts and painting old ones.....		155 74
Mowing weeds.....		967 54
Patrolman from Port Byron to Montezuma to prevent driving on towing path.....		56 06
Feeder tenders.....		426 61
Livery for paying off and inspection....		147 00
Total.....		\$9,442 73

## REPAIRS AND IMPROVEMENTS.

*Locks.*

Machinery on Locks No. 51 and No. 52 has been overhauled and placed in good condition. Lock walls on Lock No. 52 have been repointed and wells thoroughly cleaned.

*Bridges.*

Bridges No. 120 and No. 122 at Montezuma have been rebuilt. Several have been replanked and repaired, replacing wood sills with concrete. Gas pipe rail has been built on Bridge No. 117 at Port Byron and concrete rail on Bridge No. 124 at Mays Point.

*Slope-Wall.*

Slope-walls were relaid and repaired where necessary during spring repairs.

*Tow-Path.*

About one and one-half miles of tow-path has been graveled. Montezuma and Weedsport levels and berme banks strengthened at various places along section.

*Feeders.*

Bars were removed from both Owasco and Putnam feeders and several leaks stopped.

*Weeds and Brush.*

Weeds and brush have been cut and burned, both banks of canal entire length of section, also Owasco and Putnam feeders.

C. E. WHITMAN,  
*Superintendent.*

ANNUAL REPORT, showing the name and number of structures or works, the different heads of expenditures, and the cost of each, on the Oswego canal, under the charge of D. S. Burleigh, superintendent of repairs, during the 205 days ended April 23, 1911.

STRUCTURES OR WORKS, ETC.	Whole number on section.	Total expenditures.
Locks.....	22	\$8 00
Lock-tending (exclusive of oil) .....	.....	1,582 50
Lock-gates.....	116	96 30
Aqueducts.....	1	.....
Waste-weirs.....	8	.....
Culverts.....	4	.....
Road bridges (wood).....	7	.....
Road bridges (iron).....	10	178 74
Tow-path bridges (wood).....	4	.....
State scows.....	1	.....
Ice breakers.....	1	.....
Lock-houses.....	20	.....
Work-shops.....	1	.....
Timber-sheds.....	1	.....
Raising and repairing tow-path and berme bank, not including repairs to slope walls.....	.....	71 02
Watching canal.....	.....	242 50
General repairs.....	.....	352 68
Cutting brush.....	.....	717 80
Closing canal.....	.....	37 76
Disbursing clerk.....	.....	150 00
Publishing abstracts.....	.....	12 90
Filing abstracts.....	.....	93
Total.....	.....	\$3,451 13

D. S. BURLEIGH,  
Superintendent.

ANNUAL REPORT, showing the name and number of structures or works, the different heads of expenditures, and the cost of each, on the Oswego canal, under the charge of W. J. Hartnett, superintendent of repairs, during the 160 days ended September 30, 1911.

STRUCTURES OR WORKS, ETC.	Whole number on section.	Total expenditures.
Locks .....	22	\$255 79
Lock-tending (exclusive of oil) .....	.....	6,295 22
Lock-gates .....	116	900 41
Aqueducts .....	1	.....
Waste-weirs .....	8	.....
Culverts .....	4	.....
Road bridges (wood) .....	7	.....
Road bridges (iron) .....	10	.....
Tow-path bridges (wood) .....	4	39 58
State scows .....	1	.....
Ice breakers .....	1	.....
Lock-houses .....	20	41 50
Work-shops .....	1	.....
Timber-sheds .....	1	.....
Raising and repairing tow-path and berme bank, not including repairs to slope walls .....	.....	536 85
Dams (feet, 3,371) .....	.....	298 58
Docking .....	.....	361 29
Watching canal .....	.....	390 50
Disbursing clerk .....	.....	358 33
Publishing abstracts .....	.....	18 90
Filing abstracts .....	.....	1 24
General repairs .....	.....	32 60
Total .....	.....	\$9,530 79

## REPAIRS AND IMPROVEMENTS.

New lock gates have been placed at Lock No. 15 and Lock No. 11.

Towing path has been repaired and made passable for teams where possible and necessary where the New Barge Canal work conflicted with the canal.



Weeds and brush have been cut where required.

The old lock at Baldwinsville has been put in fair condition.

The Exchange bridge at Hinmansville has been repaired and the bulkhead at Battle Island dam has been rebuilt.

The draw-bridge at Caughdenoy needs a thorough overhauling.

W. J. HARTNETT,  
*Superintendent.*

ANNUAL REPORT, showing the name and number of structures or works, the different heads of expenditures, and the cost of each, on the Cayuga and Seneca canal, under the charge of O. E. Emens, superintendent of repairs, during the 164 days ended March 13, 1911.

STRUCTURES OR WORKS, ETC.	Whole number on section.	Total expenditures.
Locks.....	12	\$103 66
Lock-tending (exclusive of oil).....		1,341 59
Lock-gates.....	48	.....
Waste-weirs.....	1	.....
Farm bridges (wood).....	1	} 835 16
Road bridges (wood).....	7	
Road bridges (iron).....	12	
Tow-path bridges (wood).....	26	
State scows.....	1	.....
Lock-houses.....	3	.....
Work-shops.....	1	.....
Watch-houses.....	11	.....
Store-houses.....	1	.....
Dams (feet, —).....	5	62 23
Docking.....		82 94
Watching canal.....		200 01
Repairs at State shop.....		20 72
Raising sunken boats.....		24 84
Livery for paying off and inspection....		42 00
Lighthouse keeper.....		33 33
Disbursing clerk.....		187 50
Publishing abstracts.....		8 70
Total.....		\$2,942 68

O. E. EMENS, *Superintendent.*

ANNUAL REPORT, showing the name and number of structures or works, the different heads of expenditures; and the cost of each, on the Cayuga and Seneca canal, under the charge of John Van Riper, superintendent of repairs, during the 201 days ended September 30, 1911.

STRUCTURES OR WORKS, ETC.	Whole number on section.	Total expenditures.
Locks.....	12	\$426 54
Lock-tending (exclusive of oil).....		3,661 37
Lock-gates.....	48	462 15
Waste-weirs.....	1	79 40
Farm bridges (wood).....	1	.....
Road bridges (wood).....	7	.....
Road bridges (iron).....	12	657 17
Tow-path bridges (wood).....	26	258 04
State scows.....	1	.....
Lock-houses.....	3	.....
Work-shops.....	1	.....
Watch-houses.....	11	.....
Store-houses.....	1	.....
Raising and repairing tow-path and berme bank, not including repairs to slope walls.....		374 57
Dams (feet, —).....	5	119 48
Docking.....		199 27
Watching canal.....		545 79
Disbursing clerk.....		375 00
Lighthouse keeper.....		50 97
Cutting eel grass.....		79 40
Publishing abstracts.....		25 50
Livery for paying off.....		42 00
Livery for inspection.....		31 50
Caring for bridges.....		96 25
Cutting weeds on tow-path.....		390 99
Work at State shop.....		120 75
Aiding grounded boats.....		36 88
Total.....		\$8,033 02

## REPAIRS AND IMPROVEMENTS.

Towing path has been scraped and graded, also all loose stones removed and weeds cut the entire length of section.

All locks and lock-gates being repaired, also eight new gates installed.

About 1,500 feet of docking installed at Seneca Falls, Waterloo and Geneva.

All bridges have been replanked and repaired where necessary, also a new bridge over Woolen Mills Flume at Seneca Falls.

During the period covered by this report navigation has not been interrupted from any cause.

## RECOMMENDATIONS.

The tow-path from Mud lock to Seneca Falls is in a very bad condition, being washed out, and needs much repairing.

The docking at Geneva is in a very dilapidated condition and will have to be repaired.

JOHN VAN RIPER,  
*Superintendent.*

ANNUAL REPORT, showing the name and number of structures or works, the different heads of expenditures, and the cost of each, on the Black River canal, under the charge of J. A. Fiske, superintendent of repairs, during the 212 days ended April 30, 1911.

STRUCTURES OR WORKS, ETC.	Whole number on section.	Total expenditures.
Locks.....	113	\$573 30
Lock-tending (exclusive of oil).....		3,652 50
Lock-gates.....	406	186 81
Aqueducts.....	5	
Waste-weirs.....	11	
Culverts.....	19	
Weigh-locks.....	36	
Farm bridges (wood).....		251 79
Road bridges (wood).....	22	
Road bridges (iron).....	7	
Tow-path bridges (wood).....	2	
State scows.....	2	
Small boats.....	1	
Lock-houses.....	54	
Watch-houses.....	2	
Store-houses.....	3	
Timber-sheds.....	1	
Piling machine.....	1	
Raising and repairing tow-path and berme bank, not including repairs to slope walls.....	1	749 14
Watching canal.....		487 50
Publishing abstracts.....		21 68
General repairs.....		473 95
Cleaning superintendent's office.....		14 00
Livery for inspection and paying off.....		105 00
Tending Alder creek reservoir.....		120 00
Tending Garden street bridge, Rome.....		150 00
Tending Delta feeder.....		15 00
Disbursing clerk.....		225 00
Total.....		\$7,025 67

J. A. FISKE,  
Superintendent.

ANNUAL REPORT, showing the name and number of structures or works, the different heads of expenditures, and the cost of each, on the Black River canal, under the charge of Chas. Dorrity, superintendent of repairs, during the 153 days ended September 30, 1911.

STRUCTURES OR WORKS, ETC.	Whole number on section.	Total expenditures.
Locks.....	113	\$275 77
Lock-tending (exclusive of oil).....		10,656 80
Lock-gates.....	406	546 37
Aqueducts.....	5	43 00
Waste-weirs.....	11	.....
Culverts.....	19	.....
Farm bridges (wood).....	36	110 34
Road bridges (wood).....	22	329 51
Road bridges (iron).....	7	.....
Tow-path bridges (wood).....	2	.....
State scows.....	2	.....
Small boats.....	1	.....
Lock-houses.....	54	.....
Work-shops.....	2	.....
Watch-houses.....	3	.....
Timber-sheds.....	1	.....
Piling machines.....	1	.....
Raising and repairing tow-path and berme bank, not including repairs to slope walls.....		750 95
Cleaning out bottom of canal during spring repairs.....		1,024 60
Docking.....		1,176 42
Repairs of breaches.....		360 77
Watching canal.....		1,180 00
Other work of consequence which does not come under any of the above heads, viz.:		
Raising sunken boats.....		160 78
Building slope wall.....		281 16
Cutting brush and weeds.....		329 25
Cleaning eel grass from feeder.....		99 50
Disbursing clerk.....		375 00
Tending Alder creek reservoir.....		135 00
Tending Delta feeder.....		40 00

ANNUAL REPORT, *showing the name and number of structures or works, the different heads of expenditures, and the cost of each, on the Black River canal — (Continued).*

STRUCTURES OR WORKS, ETC.	Whole number on section.	Total expenditures.
Tending Garden street bridge. ....	.....	\$400 00
Livery for paying off. ....	.....	192 00
Cleaning superintendent's office. ....	.....	17 50
Publishing abstract. ....	.....	32 70
Piling and stocking lumber. ....	.....	142 03
General repairs. ....	.....	2,559 45
Total. ....	.....	\$21,218 90

CHARLES DORRITY,  
*Superintendent.*

# WESTERN DIVISION.

---

OFFICE OF THE  
ASSISTANT SUPERINTENDENT OF PUBLIC WORKS.

ROCHESTER, N. Y., Dec. 31, 1911.

HON. CHAS. E. TREMAN, *Superintendent of Public Works, Albany,  
N. Y.:*

Dear Sir.—I submit herewith the annual report relative to the Western Division of the canal, for the fiscal year ending Sept. 30th, 1911.

In accordance with the official notices given by you, navigation was opened on May 15th, and closed on Nov. 15th.

For the entire Western Division, excepting between South Greece and King's Bend, where the Barge Canal location is south of Rochester, the Barge Canal closely follows the alignment of the present Erie Canal, being for most of the distance the present canal widened and deepened. From Tonawanda to the eastern end of this division Barge Canal contracts are under way as follows numbered from east to west: Nos. 47, 48, 76, 77, 49, 63, 41, 23, 21, 6, 60, 61, 62, 9, 64, 66, 67, 40, 19; also others for steel work of bridges and other structures. Work on these contracts has been in progress more or less all this year excepting Contract 9, finished early in the year, and Contract 6, practically finished.

The dual work of maintaining navigation and continuing Barge Canal operations on this division at one and the same time has had its drawbacks, but we of the Western Division congratulate ourselves on the fact, and it is a fact, that notwithstanding the many leaks due to new work, the water level was never kept more steadily at normal, and justifiable complaints were few, credit for which condition is due to the careful and intelligent inspection of banks and structures by the various patrolmen and bank watchmen maintained for that purpose.

The most disastrous break of recent years, judged by amount of damage done, delay to navigation and cost to repair, happened on May 19th, at Bushnell's Basin, stopping navigation from that date to June 20th. By special arrangement with Kerbaugh Co., Inc., who had plant and an organization of men working on Barge Canal work at this point, and with the active co-operation of the State Engineer's Dept., this department was able to start the work of repair at once, and as it was prosecuted day and night, navigation was resumed at the earliest moment possible.

After navigation had been resumed it became necessary to strengthen the banks in the vicinity of the break. This was done by weighting them with stone at different points. It was also necessary to line the bottom of canal with clay at different places adjacent to the break. All this work was attended to by this department after the resumption of navigation.

### *Equipment.*

One hoisting engine and one Arnett pile hammer has been added to equipment to Section No. 8.

Steel sheet piling has been placed at Fairport and spruce piling delivered at various points on division for emergency repairs.

Two new row boats were built for use at stop gates.

Procured one Coltrin concrete mixer, small capacity, and one new steam pile driver.

## ORDINARY REPAIRS.

### *Section No. 9.*

Took up existing 12-inch pipe opposite Kersberg property, in Rochester, for a distance of 300 feet, and relaid same. Also laid 8-inch pipe for a distance of 500 feet easterly through rock and quicksand to stop seepage from canal.

Old wall torn down and excavated, and new concrete wall built for a distance of 100 feet on berme bank at Whitney Elevator.

Dredged out bar from prism of canal for a distance of about 1,000 feet on the Perrinton Straits, east of Fairport.



Erected a temporary dock on berme side of canal at Bushnell's Basin on account of highway bridge having collapsed.

Repaired leak at Culvert No. 36.

Excavated trench 8 feet deep and 350 feet long, and laid 6-inch tile in same; built concrete cut-off wall 8 feet high, 8 inches thick and 130 feet long between tow-path and Hutchinson's mill at Pittsford, to stop a bad leak.

Repaired leak 1,000 feet east of Bridge No. 95, by placing in prism of canal burlap blanket 45 x 300 feet, and loading with 420 yards of clay.

Repaired leak in main pipe at Brighton lift bridge.

Repaired leak in berme bank at Western Wide Waters by puddling, etc., and placing stone along face of bank to protect same.

Planked lock bottom under tumble gate, put in new tumble gate platform, planked bulk head under upper gates, put in new bumper timbers and plunge rods, and replanked old gates at Lock No. 63.

Repaired tumble gate and platform of Lock No. 64, planked lock bottom under tumble gate, placed new hollow quoin, and put in new wedges and bumper timbers and replanked bottom of lock.

Put in concrete slab on north angle of long lock, and repaired concrete bottom and culvert of Lock No. 66.

Made general repairs to Locks Nos. 63, 64, 65 and 66.

Repaired and replanked Bridges Nos. 45, 46, 47, 49, 50, 52, 56, 61, 63, 64, 66, 67, 70, 73, 74, 75, 77, 90, 91, 98, 108, 109.

Floor system and trusses strengthened on Emerson street lift bridge for new street car line; also new main cables and extra counterweights placed in position.

Two new cast steel miter wheels were put in place on Brown street lift bridge, also new cables.

New cables were placed on Smith street, Caledonia avenue, and Fullamtown lift bridges.

Water was pumped out of pits at Plymouth avenue lift bridge to allow cleaning, scraping and painting of pontoons, lifting posts and struts.

Minor repairs were made to steel rack on Chappel street lift bridge at Lockport, pump at Knowlesville, water wheel at Brockport, water pipe and hanger rods at Fullamtown lift bridges.

Laid new sidewalk and coping, and guard rail erected at Bridge No. 66.

Inserted new stringers on Bridges Nos. 59 and 60.

Repaired abutment of Brockport lift bridge.

Built new sidewalk and docking from Aqueduct street to Exchange street lift bridge.

### *Section No. 10.*

Two new lock culverts inserted in south tier of combined locks at Lockport.

New gates for Lock No. 68 assembled and installed.

Put in dam sticks at head of Sulphur Springs Guard Lock gates and closed same.

Put in new joists and replanked driveways of Bridges Nos. 156 and 164½, and refloored Bridge No. 157.

Teamed and delivered cinders for approach to Bridge No. 158.

Built fence around new state yard at Lockport.

Relaid fallen tow-path walls at following points: at Bridge No. 140½, between Bridges Nos. 125 and 128, Nos. 167 and 168, Nos. 139 and 140, and between combined locks and Sulphur Springs Guard Lock.

Drove sheet piling, repaired berme bank and removed track at east end of new concrete wall at Holley.

Repaired waste weir No. 15, and removed silt from same.

Cleaned out and repaired East Holley stop gates.

Repaired and repainted scow "Lockport."

Installed new toilet rooms and lavatory in Section Supt's offices at combined locks, Lockport.

### *Section No. 11.*

Repaired approach to lower Grand Island Ferry bridge by relaying 150 feet of loose stone in retaining wall, also laid 100 feet of concrete coping 2 feet x 8 inches on top of same.

Repaired approach to Tonawanda Grand Island Ferry bridge by laying 150 feet of cement coping on retaining wall; also built 150 feet of guard rail on cement coping, and pointed 996 feet of masonry.

Replanked Genesee street, Hudson street and Jersey street bridges, and repaired planking on Water street and Lake street bridges.

Put in new stringers, and replanked top of "I" beams, driveway and sidewalks of Delaware street bridge, Tonawanda; also scraped and painted all iron work, and took out old bolts and channel beams, and inserted new ones.

Took out old stringers and laid new ones, and planked Main street bridge, Tonawanda.

Made new balance beams for Lock No. 72.

Drove piling and sheeted same for a distance of 125 lineal feet on north side of river lock at Tonawanda, to repair damage done by flood and ice jam, and built 50 feet of guard pier at foot of lock and 75 feet at New York Central R. R. bridge at Tonawanda creek.

Rebuilt and repaired tow-path at the following points: For about two miles east from Pickard's Bridge, from New Home Bridge to Pendleton, and between Main street and Five Mile bridge.

Rebuilt vertical wall from Water Works to Ferry street, and between Ferry street and Potomac avenue, Buffalo; also 35 feet of vertical tow-path wall between Parker and Seymour streets, Tonawanda.

Built 75 lineal feet of timber vertical wall between Seymour street bridge and Parker street bridge, Tonawanda.

Laid 108 lineal feet of docking timber on vertical wall between New York Central R. R. and pumping station, Buffalo. Built 26 lineal feet of concrete vertical wall and laid 50 lineal feet of concrete coping with guard rail between Slips Nos. 1 and 2.

Rebuilt 188 lineal feet of timber docking between New York Central R. R. bridge and Delaware street, Tonawanda.

Rebuilt and replaced long dock at Tonawanda.

Built fence on berme bank at Martinsville for 1,080 feet.

Broke up ice jam in Tonawanda creek below the dam to prevent overflow and damage.

Raised sunken boat "C. F. Still" at Tonawanda and delivered at dry docks.

Repaired boats as follows: Took out old planking on sides, put in new, caulked and painted scows "Tonawanda" and "Buffalo;" replanked side and recaulked state dredge; repaired and recaulked

tug "Queen City," and two derrick boats; rebuilt, repaired and caulked scows Nos. 1 and 2.

Dredging was performed in the canal at the following points in Buffalo: From Ohio Basin on Wabash street side, 2,100 cu. yds.; from Ohio Basin on Ohio street side, 6,500 cu. yds.; from Ohio Basin on Mackinaw street side, 2,800 cu. yds.; from entrance to slip at Ohio Basin, 2,700 cu. yds.; at Pendleton, and removed dam at that point; about 1,000 feet below state yard and basin at ship lock; in vicinity of New Home bridge and about 200 feet at Pendleton where trouble had been caused by grounding of boats and low water; removed two old canal boats at Georgia street bridge; dredged timbers from sloop lock that were taken out of center wall by Government, and dredged out entrance to Scajaquada creek.

#### WESTERN DIVISION.

Labor performed by the Western Division shop force was applied as follows:

Overhauled and repaired planer; built room in store house for storage of lock and bridge patterns; repaired and overhauled gates of weighlock, and water wheel of division shops; took out old lining and apron and put in new, to wheel pit of division shops, under weighlock, and repaired rack to water wheel; retimbered outlet to raceway at weighlock; made sills, leaders, ladder, etc., for new steam pile driver; repaired deck, sides and pilot house of pump boat and painted same; repaired scows "Rochester" and "Pittsford;" built stairs for Fairport lift bridge; erected railing at bridge No. 70; prepared timbers for new bridge No. 51; erected new foot bridge over canal at Bushnell's basin at a point near where highway bridge fell in during break in canal at that point; made and installed new guard rails at Lyell avenue lift bridge.

Built new foot bridge for lock No. 63; built upper and lower tow-path gates for lock No. 55; lower heel and tow-path gates for lock No. 66; platform for lock No. 64, and tumble gate platforms for locks Nos. 63 and 64; lower gates for lock No. 69 (combined locks); made balance beam for lock No. 60; toe posts for locks Nos. 60 and 62, and balance beams and recess sticks for lock No. 65; made eight balance beams for locks on Section No. 8; made two new heel posts and new gates for Adams basin stop gate, and repaired Bushnell's basin and Cartersville stop gates.

## EXTRAORDINARY REPAIRS.

## CHAP. 533, LAWS OF 1910.

*Section No. 8.*

Concreting between the foundation timbers and renewing some portions of plank bottoms of locks Nos. 53, 54 and 56 to prevent leakage.

Placing concrete jacket over arch culvert of lock No. 57, to prevent leakage; also rear face of lock wall faced with concrete.

Scraping and gravelling tow-path where necessary over section.

Repairing timber dock in front of State gravel pit at Palmyra.

Ditching in towns of Galen, Lyons, Newark and Palmyra, to prevent damage to adjacent property.

*Section No. 9.*

Removing where necessary planking of floors of locks Nos. 62, 63, 64 and 65 to allow of concreting between foundation timbers, to prevent undermining.

Stripping culvert No. 36 and placing a concrete jacket over same to prevent leakage.

Scraping and graveling tow-path throughout section where necessary.

Ditching at following points:

East Culvert 35 — East Culvert 37.

East Culvert 41 — East and West Culvert 42.

Outlet Culvert 44 — East Culvert 48.

West Culvert 49 — West Culvert 50.

East Culvert 53 — East Culvert 51.

Ditching between bridges Nos. 101 and 102. Opening and cleaning out ditch at Harvard street, Rochester.

Cleaning out culverts Nos. 41, 42, 50, 51 and 53.

Reising and graveling approaches to bridges Nos. 88-90-59-60 and 54.

*Section No. 10.*

Scraping and graveling tow-path where needed throughout section.

Weeds and brush were cut from along the highway and banks of Oak Orchard creek feeder.

*Section No. 11.*

Driving piles, capping and bridging same, for a distance of 2,200 lineal feet between Potomac avenue and Bridge street, in order to protect vertical wall.

Placed concrete coping on top of vertical wall for 2,250 lineal feet between Commercial and Erie streets.

One new gate placed in ship lock, and bottom of lock repaired.

Tow-path scraped and graveled where needed.

Rebuilding vertical wall on both banks of canal between Georgia and Henry streets.

Two thousand three hundred feet of concrete coping built and 1,800 lineal feet of wooden railing erected between Erie and Georgia streets.

Foot bridge removed from berme bank over abandoned dry dock slip at Charles street.

*Special Appropriation.*

The superstructure and foundation of bridge over Keuka Lake outlet, at Liberty street, Penn Yan, repaired and bridge replanked.

## RECOMMENDATIONS.

On account of the great advantage the private telephone line from Rochester to Lockport has proved itself to be, I recommend this line be extended from Rochester to Clyde.

It will be necessary to paint a large number of steel bridges on this division this year, and as our method of removing dirt and scale is obsolete, I recommend the purchase of a sand blast apparatus of sufficient size to do this work in the modern way, to be installed on a boat.

The water supply pipe to the weighlock building and shops at Rochester is inadequate, being only 1½ inches; it is moreover in a decaying condition, requires digging up and replacing frequently, furnishes no fire protection whatever, and I recommend it be replaced by a four-inch or six-inch line with three fire plugs and three reels of fire hose.

Owing to the haphazard method or no method of keeping tabs on the work of the night watchman, I recommend the installation

of a time clock and a number of pull boxes distributed at points on the premises to which he should go at regular intervals.

The heating system in the shops (coal stoves) is inadequate, expensive and dangerous, and I recommend coils of steam pipes be installed and a boiler large enough to furnish heat for office building and shops installed to replace present equipment.

I recommend that a strong wire fence be built around the State yard at Buffalo for the purpose of making more secure the property contained therein.

I desire herein to thank all the employees of this division for their painstaking and intelligent attention to their various duties, their loyalty to the interests of the State at all times, and to assure them of my personal appreciation and good will.

CHAS. McDONOUGH,  
*Assistant Superintendent.*

*Itemized Report of Expenditures by Henry A. Kunze, Assistant Superintendent Public Works, in Account with F. C. Stevens, Superintendent of Public Works, for Ordinary Repairs on the Western Division, Erie Canal, for that portion of the Fiscal Year of 1910-1911, extending from October 1st, 1910, to January 4th, 1911.*

ITEMS.	Western Division office.	Western Division, Erie.	Section No. 8.	Section No. 9.	Section No. 10.	Section No. 11.	Totals.
Salary clerks, stenographer and janitress	\$980 99	\$7,167 88	.....	\$2,549 78	.....	\$3,079 19	\$980 99
Labor, special agents, foremen, etc.	.....	1,431 73	\$3,220 21	2,055 54	3,540 92	6,825 19	13,361 41
Lumber	.....	145 78	107 18	194 00	142 07	820 10	17,073 59
Coal	.....	591 76	37 69	175 45	174 37	142 16	1,319 11
Hardware	.....	5 25	.....	574 45	8 46	96 04	1,121 43
Machinists' work and bridge repairs	.....	.....	60 00	22 05	58 58	116 00	684 20
Stone, cement, sand, etc.	219 46	50 81	43 97	15 95	44 95	37 30	256 58
Telephone and telegraph	6 96	116 64	.....	94 22	111 45	96 00	412 44
Gas and electric light and power	129 06	7 78	.....	.....	.....	.....	425 27
Office furniture, stationery, supplies, postage, etc.	.....	.....	.....	.....	70 00	97 00	136 84
Diving and diving supplies	.....	621 23	4 30	.....	.....	.....	167 00
Freight, cartage and towing	.....	560 17	123 60	246 36	216 80	80 00	705 53
Expense, traveling, livery, etc.	.....	572 16	.....	43 08	703 00	47 10	1,194 03
Castings, machinery and supplies for locks and bridges	.....	183 39	8 63	85 43	185 12	.....	1,318 24
Ship chandler, boat repairs and supplies	.....	60 83	150 41	54 32	41 70	565 50	1,018 07
Rubber goods, paints and oils	.....	60 83	17 60	21 80	152 04	93 90	431 26
Equipment, machinery, etc.	.....	637 54	480 95	86 24	25 00	215 30	1,044 28
Royalty, storage and miscellaneous	.....	.....	.....	.....	.....	.....	1,592 19
Totals	\$1,316 47	\$12,162 93	\$4,254 54	\$6,138 72	\$6,039 02	\$12,310 78	\$42,232 46



*Itemized Report of Expenditures by Henry A. Kunze, Assistant Superintendent Public Works, in Account with Chas. E. Treman, Superintendent of Public works, for Ordinary Repairs on the Western Division, Erie Canal, for that portion of the Fiscal Year of 1910-1911, extending from January 4th, to February 20th, 1911.*

ITEMS.	Western Division office.	Western Division, Erie.	Section No. 8.	Section No. 9.	Section No. 10.	Section No. 11.	Totals.
Salary clerks, stenographer and janitress.....	\$480 49	\$2,499 59	\$23 50	\$621 00	\$633 51	\$1,407 25	\$480 49
Labor, special agents, foremen, etc.....	.....	.....	1,194 32	.....	5 00	20 00	5,184 85
Lumber.....	.....	78 00	.....	.....	6 80	13 00	1,219 32
Coal.....	.....	.....	.....	.....	8 83	7 85	1,219 32
Hardware.....	.....	.....	.....	.....	.....	.....	16 68
Bridge repairs.....	.....	.....	45 81	.....	10 00	.....	45 81
Stone, cement, sand, etc.....	.....	.....	.....	.....	.....	.....	10 00
Telephone and telegraph.....	40 05	4 00	7 54	.....	.....	14 80	68 39
Gas and electric light and power.....	3 20	32 08	.....	.....	.....	24 00	59 28
Office supplies, stationery and postage.....	24 34	.....	.....	.....	.....	.....	24 34
Diving and diving supplies.....	.....	.....	.....	.....	.....	10 00	10 00
Tug service, rent of boats, etc.....	.....	10 92	30 37	.....	.....	60 00	60 00
Freight, cartage and towing.....	.....	95 51	.....	.....	53 61	41 20	156 62
Expense, traveling, livery, etc.....	.....	.....	.....	344 62	.....	7 50	344 62
Cable for bridges.....	.....	.....	.....	.....	.....	.....	156 62
Ship chandlery, etc.....	.....	.....	.....	.....	.....	12 65	12 65
Paints and oils.....	.....	.....	.....	.....	.....	8 55	8 55
Equipment, tools, etc.....	.....	53 05	.....	.....	.....	.....	53 05
<b>Totals.....</b>	<b>\$548 08</b>	<b>\$2,773 15</b>	<b>\$1,301 54</b>	<b>\$965 62</b>	<b>\$717 75</b>	<b>\$1,585 60</b>	<b>\$7,891 74</b>

*Itemized Report of Expenditures by Chas. McDonough, Assistant Superintendent Public Works, in Account with Chas. E. Treman, Superintendent of Public Works, for Ordinary Repairs on the Western Division, Erie Canal, for that portion of the Fiscal Year of 1910-1911, extending from February 20th, 1911, to September 30th, 1911.*

ITEMS.	Western Division office.	Western Division, Erie.	Section No. 8.	Section No. 9.	Section No. 10.	Section No. 11.	Totals.
Salary clerks, stenographer and janitress.....	\$2,402 52	\$20,629 81	\$286 99	\$9,206 65	\$8,057 65	\$13,224 27	\$2,402 52
Labor, special agents, foremen, etc.....	.....	262 47	1,409 39	3,273 63	1,515 05	2,697 49	51,405 37
Lumber.....	.....	539 76	85 23	526 39	175 67	1,048 95	9,158 04
Coal.....	.....	236 40	218 79	489 37	1,074 95	1,191 84	2,375 10
Hardware.....	.....	4 80	25 30	799 01	110 73	178 45	3,121 35
Machinists' work and bridge repairs.....	.....	.....	.....	584 87	172 53	151 33	1,018 29
Stone, cement, sand, etc.....	386 19	345 15	51 40	23 15	224 26	161 69	1,908 75
Telephone and telegraph.....	12 38	249 70	.....	93 79	406 71	218 00	1,191 84
Gas and electric light and power.....	.....	.....	.....	.....	12 12	.....	980 58
Office furniture, stationery, postage, etc.....	164 70	.....	.....	.....	20 00	.....	176 82
Diving and diving supplies.....	.....	23 16	.....	150 00	.....	180 00	233 16
Tug service, and rent and use of boats, tools, etc.....	.....	821 66	52 17	109 35	14 50	389 00	545 00
Freight, cartage and towing.....	.....	2,127 20	380 55	1,611 57	739 70	467 30	1,183 43
Expense, traveling, livery, etc.....	.....	11 35	388 08	232 35	178 00	85 61	5,326 32
Castings, machinery and supplies for locks and bridges.....	.....	389 36	132 08	375 48	796 94	1,344 93	895 39
Ship chandlery, boat repairs and supplies.....	.....	24 61	31 50	63 50	68 10	.....	3,038 79
Rubber goods.....	.....	275 76	114 20	68 83	40 46	224 76	187 71
Paints and oils.....	.....	806 88	1,997 75	133 83	530 81	352 29	728 01
Equipment, machinery, tools, etc.....	.....	1,427 13	4 28	368 50	132 10	23 50	3,821 56
Steel piling, burlap, etc.....	.....	.....	.....	.....	.....	.....	1,960 51
<b>Totals.....</b>	<b>\$2,965 79</b>	<b>\$28,175 20</b>	<b>\$5,181 71</b>	<b>\$18,110 27</b>	<b>\$14,270 31</b>	<b>\$22,045 26</b>	<b>\$90,748 54</b>

ANNUAL REPORT, *showing the name and number of structures or works, the different heads of expenditures, and the cost of each, on section 8 of the Erie canal, under the charge of R. A. Vanderboget, superintendent of repairs, during the 170 days ended March 19, 1911.*

STRUCTURES OR WORKS, ETC.	Whole number on section.	Total expenditures.
Locks.....	9	\$215 69
Lock-tending (exclusive of oil).....	.....	3,766 50
Aqueducts.....	2	.....
Waste-weirs.....	3	.....
Culverts.....	24	.....
Farm bridges (wood).....	5	.....
Farm bridges (iron).....	1	.....
Road bridges (wood).....	10	587 68
Road bridges (iron).....	22	.....
Tow-path bridges (iron).....	3	.....
State scows.....	2	.....
Ice breakers.....	1	.....
Lock-houses.....	9	.....
Work-shops.....	1	.....
Store-houses.....	2	.....
Timber-sheds.....	1	.....
Raising and repairing tow-path and berme bank, not including repairs to slope walls.....	.....	237 79
Docking.....	.....	171 69
Watching canal.....	.....	512 00
Piling lumber.....	.....	239 93
Setting snubbing posts.....	.....	246 60
Repairs to vertical walls.....	.....	140 92
Cleaning out ditches.....	.....	246 62
General expenses.....	.....	16 00
Disbursing clerk.....	.....	187 50
Publishing abstracts.....	.....	10 02
Total.....	.....	\$6,578 94

R. A. VANDERBOGET,  
*Superintendent.*

ANNUAL REPORT, showing the name and number of structures or works, the different heads of expenditures, and the cost of each, on section 8 of the Erie canal, under the charge of H. M. Littel, superintendent of repairs, during the 194 days ended September 30, 1911.

STRUCTURES OR WORKS, ETC.	Whole number on section.	Total expenditures.
Locks.....	9	\$1,085 60
Lock-tending (exclusive of oil).....		10,935 00
Lock-gates.....		199 08
Aqueducts.....	2	58 50
Waste-weirs.....	3	39 00
Culverts.....	24	
Farm bridges (wood).....	5	1,298 59
Farm bridges (iron).....	1	
Road bridges (wood).....	10	
Road bridges (iron).....	22	
Tow-path bridges (iron).....	3	
State scows, painting and repairing same at State yard.....	2	102 00
Ice breakers.....	1	
Lock-houses.....	9	
Work-shops.....	1	
Store-houses.....	2	72 00
Timber-sheds.....	1	144 92
Raising and repairing tow-path and berme bank, not including repairs to slope walls.....		681 31
Cleaning out bottom of canal during spring repairs.....		1,175 25
Cleaning on creeks or State ditches.....		202 00
Slope wall.....		243 25
Docking.....		1,004 39
Repairs of breaches.....		106 75
Watching canal.....		1,580 00
Other miscellaneous expenditures.....		102 14
Mowing weeds and cutting brush along canal banks.....		1,357 26
Removing old boat from canal.....		63 00
Setting snubbing posts.....		52 71
General patrolman.....		350 00
Disbursing clerk.....		450 00

ANNUAL REPORT, showing the name and number of structures or works, the different heads of expenditures, and the cost of each, on section 8 of the Erie canal — (Continued).

STRUCTURES OR WORKS, ETC.	Whole number on section.	Total expenditures.
Night watch at State yard.....	.....	\$104 50
Filing and publication.....	.....	33 93
Total.....	.....	\$21,441 18

### REPAIRS AND IMPROVEMENTS.

Locks Nos. 53 and 54. New run planks were put on lock gates and platforms and piers partly planked and repaired where needed.

Lock No. 60 was repaired by one new balance beam at head of lock.

Lock No. 59 was repaired by one balance beam, also new paddles.

During the season broken chains have been repaired on tumble gates on locks Nos. 57, 58, 53, 54 and 60. Also broken tumble gates and foot bridge have been repaired on lock No. 56.

All locks and lock-houses on the section have been painted this season.

All locks on Section 8 were overhauled before opening of navigation and repairs made where most needed, new paddles put in and cleated, lock-wells cleaned out and but little trouble has been experienced in operating them this season.

### *Bridges.*

Considerable work has been done on bridges this season.

Partly planked and overhauled bridges Nos. 1, 2 and 3.

Replanking and part new joists on bridge No. 31.

Bridges Nos. 31½, 32, 33 and 40 have been partly planked and railings repaired.

Bridge No. 24 has been partly planked and part new joist.

Bridge No. 14 replanked and new wall plates put on.

Replanking on bridges Nos. 23, 27 and 34.

Bridge No. 9 has been replanked and part new joist.

A wooden farm bridge, No. 7, being badly decayed, broke in the middle from its own weight and fell into the canal, but was soon removed without interfering with navigation.

Nearly all bridges on the section have been more or less overhauled and repaired where needed.

### *Docking.*

About 2,200 lineal feet of docking has been laid at different points this season.

### *Timber Sheds and Store Houses.*

The foundation to timber sheds and stone houses on the section, having decayed and settled, have been leveled up and repaired with concrete foundations where necessary.

### *Waste Weirs and Aqueducts.*

All waste weirs and aqueducts were planked and repaired where necessary over section during spring repairs.

### *Prism of Canal.*

During spring repairs all bars were removed and prism put in first-class order and has caused no trouble during the season.

### *Cutting Weeds and Brush.*

All weeds and brush over the section were cut down and cleaned up during the season.

### *Snubbing Posts.*

Several old and decayed snubbing posts have been removed and replaced by new ones and all snubbing posts over section painted white.

*Ditches.*

During spring repairs all ditches were cleaned out where most needed.

*Slope Walls.*

Slope walls were repaired and loose stones removed during spring repairs.

*Tow Path.*

More or less work has been required to keep the tow-path in good condition on account of barge canal encroachments.

*Navigation.*

This section has experienced no interruption to navigation during the season due to any trouble on the section.

*Water.*

With one or two exceptions the required depth of water has been maintained throughout the season.

H. M. LITTEL,  
*Superintendent.*

ANNUAL REPORT, showing the name and number of structures or works, the different heads of expenditures, and the cost of each, on section 9 of the Erie canal, under the charge of Jacob Allmeroth, superintendent of repairs, during the 141 days ended February 18, 1911.

STRUCTURES OR WORKS, ETC.	Whole number on section.	Total expenditures.
Locks.....	5	\$332 73
Lock-tending (exclusive of oil).....		2,092 50
Aqueducts.....	1	
Waste-weirs.....	7	
Culverts.....	39	
Weigh-locks.....	1	
Foot bridges (iron).....	2	
Road bridges (wood).....	8	511 28
Road bridges (iron).....	36	
Tow-path bridges (wood).....	77	
State scows.....	2	
Small boats.....	3	
Ice breakers.....	2	
Store-houses.....	3	
Raising and repairing tow-path and berme bank, not including repairs to slope walls.....		100 47
Disbursing clerk.....		187 50
Publishing and filing abstracts.....		27 33
Piling lumber.....		84 56
Watching canal.....		981 33
Repairing leak.....		27 35
Tending lift bridges.....		1,226 66
Patrolmen.....		333 33
Setting snubbing posts.....		79 33
Setting guard rails.....		170 02
Aqueduct repairs.....		105 77
Cleaning State yard.....		68 81
Total.....		\$6,328 97

JACOB ALLMEROOTH,

*Superintendent.*



ANNUAL REPORT, showing the name and number of structures or works, the different heads of expenditures, and the cost of each, on section 9 of the Erie canal, under the charge of Thomas J. Leddy, superintendent of repairs, during the 224 days ended September 30, 1911.

STRUCTURES OR WORKS, ETC.	Whole number on section	Total expenditures.
Locks . . . . .	5	\$258 12
Lock-tending (exclusive of oil) . . . . .		6,305 09
Tending lift bridges . . . . .	13	3,638 72
Watching stop-gates . . . . .	3	371 60
Aqueducts . . . . .	1	
Waste-weirs . . . . .	7	
Culverts . . . . .	39	113 00
Weigh-locks . . . . .	1	
Foot bridges (iron) . . . . .	2	
Road bridges (wood) . . . . .	8	
Road bridges (iron) . . . . .	36	
Tow-path bridges (wood) . . . . .	77	
State scows . . . . .	2	
Small boats . . . . .	3	
Ice breakers . . . . .	2	
Lock-houses . . . . .	5	
General repairs by scow forces . . . . .		4,462 06
Store-houses . . . . .	3	
Cleaning out bottom of canal during spring repairs . . . . .		1,720 33
Cleaning feeder . . . . .		116 32
Slope wall . . . . .		1,032 68
Repairs to vertical wall . . . . .		1,421 54
Watching canal . . . . .		2,587 20
Patrolling banks . . . . .		929 03
Disbursing clerk (salary) . . . . .		450 00
Publishing and filing abstracts . . . . .		80 75
General repairs to bridges, locks, watch-houses, keeping bridges free from snow during winter and emergency work . . . . .		3,759 26
Total . . . . .		\$27,245 70

## REPAIRS AND IMPROVEMENTS.

*Navigation Delayed.*

Navigation was delayed on two occasions — From May 19th until June 20th — owing to a bad break on tow-path side at Bushnell's Basin, which seemed non-preventable after careful precautions had been taken. Break was discovered by a bank watchman.

For eight days, while navigation was tied up on account of break at Bushnell's Basin, water was drawn off between Lock No. 66 and Holley and necessary repairs were made to bank at dangerous spots at Brockport and west of Rochester.

Empire Engineering Corporation dredge sunk in center of prism of canal at Culvert No. 45. Navigation was delayed at that point from 4 a. m., July 24th, until 3 p. m., July 27th.

*Leaks.*

Leaks were discovered at Culverts Nos. 30, 36, 45 and 54. One hundred boat loads of clay and blankets were used on these culverts to prevent further trouble.

Numerous other small leaks were discovered by watchmen and repaired by scow forces.

*Tow-path — Weeds and Brush.*

All weeds and brush on entire section have been cut, including weeds on feederbank, from canal to Genesee river.

*Tow-path — Graded and Clear of Obstructions.*

Tow-path was graded, scraped and graveled at points where needed on section. Extra precautions were taken to see that tow-path was clear of obstructions, where Barge Canal work was in progress.

*Docking and Walls.*

New docking was built 100 feet east of Bridge No. 68 and other docking on section kept in necessary repair.

New temporary dock built at Bushnell's Basin.

Six hundred feet of vertical wall was relaid in cement mortar from Bridge No. 84 west on berme side. This was made neces-

sary by reason of lumber yard adjoining property where boats are unloaded during navigation season.

Vertical wall was laid in cement mortar west of Bridge No. 65 and under Bridge No. 62.

### *Locks and Structures.*

Five new portable booths were made for use on section. Two are in use as telephone booths at Bushnell's Basin and the others are being used for the storage of empty cement bags at different points on the section.

New foot bridge was built at Lock No. 63. Two new heel posts and two new tracks were placed at Adams Basin stop gates. Repairs were made to abutments on all locks. New tumble gate was put in at Lock No. 63.

New foot bridge built on west side of Rochester and Eastern R. R. at Bushnell's Basin and attached to Railroad bridge.

New sidewalk, coping and closet built at Bridge No. 86.

All bridges on section have been kept in good repair. Repairs to abutments and pointing on several bridges were made during spring repairs.

### *Snubbing Posts and Guard-rails.*

New guard-rails were built and placed at S. Greece and Adams Basin.

Sixteen new snubbing posts were set in cement plates and painted white before setting.

### RECOMMENDATIONS.

Private telephone lines should be extended as far east as Lock No. 62. That is really necessary, but it would be a great convenience if it were extended as far east as Wayne County line.

THOS. J. LEDDY,  
*Superintendent.*

ANNUAL REPORT, *showing the name and number of structures or works, the different heads of expenditures, and the cost of each, on section 10 of the Erie canal, under the charge of Charles L. Papworth, superintendent of repairs, during the 160 days ended March 9, 1911.*

STRUCTURES OR WORKS, ETC.	Whole number on section.	Total expenditures.
Locks.....	6	\$163 39
Lock-tending (exclusive of oil).....	.....	1,867 50
Tending bridges.....	.....	930 00
Lock-gates.....	10	.....
Aqueducts.....	1	.....
Waste-weirs.....	11	.....
Culverts.....	66	.....
Farm bridges (wood).....	.....	841 93
Road bridges (wood).....	3	.....
Road bridges (iron).....	53	.....
Small boats.....	2	.....
State scows.....	4	.....
Lock-houses.....	1	.....
Work-shops.....	2	.....
Watch-houses.....	10	.....
Store-houses.....	1	.....
Raising and repairing tow-path and berme bank, not including repairs to slope walls.....	.....	314 38
Assisting sunken boats.....	.....	38 75
Repairs to stop-gates.....	.....	39 07
Docking.....	.....	58 62
Publishing and filing abstracts.....	.....	21 62
Watching canal.....	.....	1,260 00
Watching State property.....	.....	292 50
Watching stop-gates.....	.....	540 00
Removing, sorting and piling lumber.....	.....	1,426 07
Watching Oak Orchard Creek feeder and Sulphur Spring guard-lock.....	.....	30 00
Regulating water at Lockport.....	.....	208 06
Patrolmen.....	.....	326 66
Disbursing clerk.....	.....	225 00
Total.....	.....	\$8,583 55

CHARLES L. PAPWORTH, *Superintendent.*

ANNUAL REPORT, showing the name and number of structures or works, the different heads of expenditures, and the cost of each, on section 10 of the Erie canal, under the charge of D. Gurney Spalding, superintendent of repairs, during the 173 days ended September 30, 1911.

STRUCTURES OR WORKS, ETC.	Whole number on section.	Total expenditures.
Locks.....	6	\$2,194 71
Lock-tending (exclusive of oil).....		5,662 50
Lock-gates.....	10	.....
Aqueducts.....	1	.....
Waste-weirs.....	11	90 80
Culverts.....	66	.....
Tending Albion bridge.....		607 50
Road bridges (wood).....	3	} 2,106 14
Road bridges (iron).....	53	
State scows, 3; pump-boat, 1.....	4	244 50
Small boats.....	2	.....
Lock-houses.....	1	.....
Work-shops.....	2	56 20
Watch-houses.....	10	.....
Store-houses.....	1	.....
Raising and repairing tow-path and berme bank, not including repairs to slope walls.....		1,754 62
Docking.....		640 30
Watching canal stop-gates.....	3	1,770 90
Patrolmen.....		980 63
Disbursing clerk.....		375 00
Regulating water at Lockport.....		696 76
Watching State yards.....		675 00
Watching Oak Orchard Creek feeder.....		50 00
Watching Sulphur Spring guard-lock.....		50 00
Watching canal banks.....		4,264 83
Boating lumber for east end section.....		217 31
Cutting weeds and brush.....		1,600 10
Painting State fence.....		64 50
Assisting disabled boats.....		159 25
Publishing and filing.....		55 85
Total.....		\$24,317 40

## REPAIRS AND IMPROVEMENTS.

The office and lock-house at combined locks were renovated throughout and all the buildings repainted and a toilet room installed in each.

Locks were repaired from time to time as needs required.

Old gates were removed and new ones installed at east end of Lock No. 68.

All bridges have been repaired where needed and two coats of paint applied to Chapel street bridge-house.

Waste weirs Nos. 15, 16, 17, 18 were repaired and houses rebuilt and painted over gates to weirs Nos. 24 and 25.

State shops, etc., have been repaired.

New State Yard fence east of Bridge No. 158 received two coats of paint.

State boats have been repaired and painted two coats each.

The tow-path was repaired and graveled where most needed.

Docking has been repaired wherever needs required.

Slope and vertical walls were repaired and relaid wherever needed during the spring.

Weeds and brush cut the entire length of section.

The water supply has been fair and the levels have been kept up to normal height.

Should the old gates at West Holley be considered for use during the open season of 1912 attention should be given to its piers next spring; also the heel post to south gate at East Holley stop gates.

The canal should be bottomed out starting at east end of north tier of combined locks, running east to contract No. 67, distance about four hundred lineal feet.

The State Canal feeder on west side of Main street in village of Medina, near New York Central & Hudson River Rail Road, will soon need a new cover as the present planking is fast going into decay. I would recommend concrete for said cover.

Gates and timbers to the above mentioned feeder throughout Medina will need considerable repair in the spring.

On account of work being done on Contract No. 67 at "Old State Yard" south of combined locks, there should be a work shop and timber shed at "New State Yard" east of Bridge No. 158.

D. GURNEY SPALDING, *Superintendent.*

ANNUAL REPORT, *showing the name and number of structures or works, the different heads of expenditures, and the cost of each, on section 11 of the Erie canal, under the charge of W. J. Hingston, superintendent of repairs, during the 141 days ended February 18, 1911.*

STRUCTURES OR WORKS, ETC.	Whole number on section.	Total expenditures.
Locks.....	3	.....
Lock-tending (exclusive of oil).....	.....	\$1,281 25
Change bridges.....	3	.....
Farm bridges (wood).....	35	} 675 00
Farm bridges (iron).....	3	
Road bridges (wood).....	4	
Road bridges (iron).....	24	
Tow-path bridges (wood).....	4	
Tow-path bridges (iron).....	6	} 1,605 07
Raising and repairing tow-path and berme bank, not including repairs to slope walls.....	.....	
Publishing abstracts.....	.....	
Watching canal.....	.....	
Watching State yard.....	.....	
Cleaning snow and ice from bridges.....	.....	
Watching guard-lock at Black Rock.....	.....	
Watching river-lock at Tonawanda.....	.....	
Tending flood-gates at Tonawanda.....	.....	
General repairs.....	.....	
Disbursing clerk.....	.....	225 00
Total.....	.....	\$6,041 32

W. J. HINGSTON,  
Superintendent.

ANNUAL REPORT, showing the name and number of structures or works, the different heads of expenditures, and the cost of each, on section 11 of the Erie canal, under the charge of Edward H. Rogers, superintendent of repairs, during the 224 days ended September 30, 1911.

STRUCTURES OR WORKS, ETC.	Whole number on section.	Total expenditures.
Locks.....	3	.....
Lock-tending (exclusive of oil).....	.....	\$4,236 65
Bridge tenders.....	.....	1,796 75
Change bridges.....	3	.....
Farm bridges (wood).....	35	.....
Farm bridges (iron).....	3	.....
Road bridges (wood).....	4	.....
Road bridges (iron).....	24	.....
Tow-path bridges (wood).....	4	.....
Tow-path bridges (iron).....	6	.....
Disbursing clerk.....	.....	450 00
Harbor master.....	.....	300 00
General repairs.....	.....	3,789 75
Raising and repairing tow-path and berme bank, not including repairs to slope walls.....	.....	7,901 55
Watching canal and State yard.....	.....	1,423 98
Towing boats aground at Pendleton.....	.....	25 91
Publishing abstracts of expenditures.....	.....	50 00
Total.....	.....	\$19,974 59

## REPAIRS AND IMPROVEMENTS.

Navigation was not delayed on this section during the past season. The tow-path was kept in good repair. As was also slope and vertical walls. The tow-path slid into the canal at several places east of Tonawanda, all of which were repaired. The greatest at Three Mile Bend being 450 feet in length, this occurred three times, making it necessary to construct a fence at this point about 475 feet long. Also built fences at other points east.



Twelve culverts were built and repaired east of Tonawanda. Also two new bridges (frame) built over State ditch in town of Tonawanda, and two new bridges at North Tonawanda.

About 2,000 lineal feet of docking timber were laid on section, 1,500 feet of which were laid between Porter avenue and Bridge street, and 500 feet at Tonawanda.

All bridges on the section were kept in good repair.

All State boats were repaired and painted, including the building of a new crane for State dredge. All weeds and brush were cut out from tow-path, and trees trimmed where necessary.

ED. H. ROGERS,  
*Superintendent.*

---

# TABLES

ACCOMPANYING THE

Annual Report of the Superintendent of Public Works.

---

[193]



TABLE

*Exhibiting the date of the opening and closing of the Hudson river, and the number of days open; also, the time of commencement and close of each navigable season of canals, and the number of days of navigation since 1824; also the date of the opening of Lake Erie since 1827.*

OPENING AND CLOSING OF THE HUDSON RIVER.			COMMENCEMENT AND CLOSE OF NAVIGATION.				Opening of the lake.
River open.	River closed.	Days open.	Canal open.	Canal closed.	Navigable days.		
March 3, 1824	January 5, 1824	309	April 30, 1824	December 4, 1824	219	.....	
March 6, 1825	December 13, 1825	283	April 12, 1825	December 5, 1825	238	.....	
February 25, 1826	December 13, 1826	302	April 25, 1826	December 18, 1826	243	.....	
March 20, 1827	November 25, 1827	281	April 22, 1827	December 18, 1827	241	.....	
February 6, 1828	December 23, 1828	220	March 27, 1828	December 20, 1828	269	.....	
April 1, 1829	January 14, 1829	286	May 2, 1829	December 17, 1829	230	.....	
March 15, 1830	December 25, 1830	283	April 30, 1830	December 17, 1830	242	.....	
March 15, 1831	December 31, 1831	282	April 16, 1831	December 1, 1831	230	.....	
March 25, 1832	December 31, 1832	279	April 23, 1832	December 21, 1832	238	.....	
March 21, 1833	December 13, 1833	277	April 17, 1833	December 12, 1833	240	.....	
February 26, 1834	December 15, 1834	283	April 17, 1834	December 12, 1834	238	.....	
March 26, 1835	November 30, 1835	268	April 15, 1835	November 30, 1835	230	.....	
April 27, 1836	December 7, 1836	287	April 25, 1836	November 26, 1836	216	.....	
March 19, 1837	December 14, 1837	261	April 20, 1837	December 9, 1837	234	.....	
March 19, 1838	November 18, 1838	257	April 11, 1838	December 25, 1838	228	.....	
March 25, 1839	November 25, 1839	286	April 20, 1839	December 16, 1839	241	.....	
February 25, 1840	November 18, 1840	283	April 20, 1840	December 9, 1840	228	.....	
March 4, 1841	November 28, 1841	286	April 24, 1841	November 30, 1841	221	.....	
February 4, 1842	November 28, 1842	308	April 20, 1842	November 28, 1842	222	.....	
April 13, 1843	December 10, 1843	242	May 1, 1843	November 30, 1843	214	.....	
March 18, 1844	December 17, 1844	278	April 18, 1844	November 26, 1844	228	.....	
February 24, 1845	December 3, 1845	283	April 15, 1845	November 29, 1845	232	.....	
March 18, 1846	December 14, 1846	275	April 16, 1846	November 25, 1846	234	.....	
April 7, 1847	December 25, 1847	263	May 1, 1847	November 30, 1847	214	.....	
March 22, 1848	December 27, 1848	292	May 1, 1848	December 9, 1848	223	.....	
March 19, 1849	December 26, 1849	286	May 1, 1849	December 5, 1849	219	.....	
March 10, 1850	December 17, 1850	282	April 22, 1850	December 11, 1850	234	.....	
February 26, 1851	December 14, 1851	293	April 15, 1851	December 5, 1851	235	.....	

Table exhibiting the date of the opening and closing of the Hudson river, etc.— (Concluded).

OPENING AND CLOSING OF THE HUDSON RIVER.			COMMENCEMENT AND CLOSE OF NAVIGATION.			
River open.	River closed.	Days open.	Canal open.	Canal closed.	Navigable days.	Opening of the lake.
March 28, 1852.....	December 23, 1852.....	270	April 20, 1852.....	December 15, 1852.....	239	April 20, 1852
March 17, 1853.....	December 21, 1853.....	274	April 20, 1853.....	December 20, 1853.....	245	April 14, 1853
March 27, 1854.....	December 8, 1854.....	266	May 1, 1854.....	December 3, 1854.....	217	April 28, 1854
March 27, 1855.....	December 20, 1855.....	268	May 1, 1855.....	December 10, 1855.....	224	April 21, 1855
April 11, 1856.....	December 14, 1856.....	268	May 5, 1856.....	December 4, 1856.....	214	April 2, 1856
February 27, 1857.....	December 27, 1857.....	302	May 6, 1857.....	December 15, 1857.....	223	April 27, 1857
March 20, 1858.....	December 17, 1858.....	273	April 28, 1858.....	December 8, 1858.....	225	April 15, 1858
March 13, 1859.....	December 10, 1859.....	273	April 15, 1859.....	December 12, 1859.....	242	April 7, 1859
March 6, 1860.....	December 14, 1860.....	283	April 23, 1860.....	December 12, 1860.....	232	April 17, 1860
March 5, 1861.....	December 13, 1861.....	294	May 1, 1861.....	December 10, 1861.....	224	April 13, 1861
April 4, 1862.....	December 19, 1862.....	259	May 1, 1862.....	December 10, 1862.....	224	April 15, 1862
April 3, 1863.....	December 11, 1863.....	252	May 1, 1863.....	December 9, 1863.....	223	April 3, 1863
March 11, 1864.....	December 12, 1864.....	277	April 30, 1864.....	December 8, 1864.....	223	April 13, 1864
March 22, 1865.....	December 16, 1865.....	270	May 1, 1865.....	December 12, 1865.....	226	April 28, 1865
March 20, 1866.....	December 15, 1866.....	270	May 1, 1866.....	December 12, 1866.....	226	April 28, 1866
March 26, 1867.....	December 8, 1867.....	257	May 6, 1867.....	December 20, 1867.....	229	April 21, 1867
March 24, 1868.....	December 5, 1868.....	252	May 4, 1868.....	December 7, 1868.....	217	April 19, 1868
April 3, 1869.....	December 9, 1869.....	248	May 6, 1869.....	December 10, 1869.....	218	May 1, 1869
March 31, 1870.....	December 17, 1870.....	261	May 10, 1870.....	December 8, 1870.....	213	April 16, 1870
March 12, 1871.....	November 29, 1871.....	263	April 24, 1871.....	December 1, 1871.....	220	April 1, 1871
April 17, 1872.....	December 9, 1872.....	247	May 13, 1872.....	December 1, 1872.....	202	May 6, 1872
April 16, 1873.....	November 22, 1873.....	221	May 15, 1873.....	December 5, 1873.....	205	April 29, 1873
March 19, 1874.....	December 12, 1874.....	269	May 5, 1874.....	December 5, 1874.....	215	April 18, 1874
April 13, 1875.....	November 29, 1875.....	229	May 18, 1875.....	December 5, 1875.....	207	April 12, 1875
April 1, 1876.....	December 2, 1876.....	245	May 4, 1876.....	Nov. 30, 1875 (by ice)	297	May 12, 1875
March 30, 1877.....	December 31, 1877.....	277	May 8, 1877.....	December 1, 1876.....	211	May 4, 1876
March 14, 1878.....	December 30, 1878.....	282	April 15, 1878.....	December 7, 1877.....	214	April 17, 1877
April 4, 1879.....	December 20, 1879.....	261	May 8, 1879.....	December 7, 1878.....	237	March 24, 1878
March 5, 1880.....	November 25, 1880.....	266	April 20, 1880.....	December 6, 1879.....	212	March 19, 1880
March 21, 1881.....	January 2, 1881.....	288	May 17, 1881.....	Nov. 21, 1880 (by ice)	216	March 1, 1881
March 8, 1882.....	December 5, 1882.....	288	April 11, 1882.....	December 7, 1881.....	206	May 26, 1882
March 29, 1883.....	December 15, 1883.....	261	May 7, 1883.....	December 1, 1882.....	241	March 4, 1883
March 25, 1884.....	December 19, 1884.....	269	May 6, 1884.....	December 1, 1884.....	208	April 25, 1884
April 7, 1885.....	December 7, 1885.....	247	May 11, 1885.....	December 1, 1885.....	205	May 2, 1885
April 30, 1886.....	December 3, 1886.....	248	May 1, 1886.....	December 1, 1886.....	214	April 25, 1886
April 6, 1887.....	December 28, 1887.....	258	May 7, 1887.....	December 1, 1887.....	209	April 17, 1887

April	7, 1888	December	14, 1888	252	May	10, 1888	December	3, 1888	208	April	14, 1888
March	10, 1889	Open all winter	December	286	May	1, 1889	November	30, 1889	214	April	10, 1889
Open entire year	24, 1890	December 2, 1890	December	337	April	28, 1890	November	30, 1890	217	March	31, 1889
March	24, 1891	December 24, 1891	December	277	May	5, 1891	December	5, 1891	215	April	13, 1891
April	1, 1892	December 22, 1892	December	266	May	1, 1892	December	5, 1892	219	April	10, 1892
March	1, 1893	December 6, 1893	December	250	May	3, 1893	November	30, 1893	212	April	15, 1893
April	18, 1894	December 24, 1894	December	281	May	1, 1894	November	30, 1894	214	April	28, 1894
March	2, 1895	December 9, 1895	December	252	May	3, 1895	December	5, 1895	216	April	4, 1895
April	7, 1896	December 19, 1896	December	256	May	1, 1896	December	1, 1896	215	April	19, 1896
April	29, 1897	December 7, 1897	December	223	May	8, 1897	December	1, 1897	208	March	6, 1897
April	13, 1898	December 13, 1898	December	242	May	7, 1898	December	10, 1898	217	April	25, 1898
April	17, 1899	December 15, 1899	December	246	April	25, 1899	December	1, 1899	220	April	28, 1899
April	9, 1900	December 11, 1900	December	248	April	25, 1900	December	1, 1900	220	April	22, 1900
March	28, 1901	December 1, 1901	December	266	May	7, 1901	November	30, 1901	207	April	20, 1901
March	17, 1902	December 8, 1902	December	263	April	24, 1902	December	4, 1902	224	April	9, 1902
March	14, 1903	December 2, 1903	December	244	May	2, 1903	November	28, 1903	210	April	6, 1903
April	4, 1904	December 4, 1904	December	257	May	5, 1904	November	26, 1904	205	May	10, 1904
March	3, 1905	December 15, 1905	December	280	May	4, 1905	November	28, 1905	209	April	22, 1905
March	22, 1906	December 5, 1906	December	253	May	2, 1906	November	28, 1906	211	April	15, 1906
March	23, 1907	December 6, 1907	December	271	May	1, 1907	December	10, 1907	224	April	6, 1907
March	23, 1908	December 18, 1908	December	283	May	5, 1908	November	30, 1908	210	April	25, 1908
March	19, 1909	December 22, 1909	December	268	May	15, 1909	November	15, 1909	185	April	22, 1909
March	17, 1910	December 19, 1910	December	288	May	15, 1910	November	15, 1910	185	April	15, 1910
March	22, 1911	January 3, 1912	January	288	May	15, 1911	November	15, 1911	185	April	15, 1911

STATEMENT of the number of locks, their lift in feet, total lockage of each canal, etc., of all the canals in the State of New York.

NAME OF CANAL.	Length in miles.	Lockage in feet.
Erie canal.....	351.78	655.80
Navigable feeders of same.....	3.35	
Champlain canal.....	66.00	179.50
Pond above Troy dam.....	3.00	
Glens Falls feeder and pond.....	12.00	132.00
Black River canal.....	35.33	1,082.25
Black River feeder.....	13.47	
Black River improvement.....	42.50	
Oneida Lake canal.....		62.00
Oswego canal.....	38.00	154.85
Oneida river improvement.....	20.00	7.85
Seneca river towing path.....	5.00	
Baldwinsville canal.....	1.00	8.00
Cayuga and Seneca canal.....	22.77	76.61
Cayuga inlet.....	2.00	
Total.....	622.20	2,357.86

NAME OF CANAL.	SITE OF CANAL				NUMBER AND SIZE OF LOCKS.			Average burden of boats	Maximum burden of boats
	Length in miles.	Width on surface.	Width on bottom.	Depth of water.	Number of locks.	Length between quoins.	Width in clear.		
Erie canal.....	363	40	28	4	83	90	15	70	76
Enlargement of same.....	351½	70	56	7	72	110	18	210	240
Oswego canal.....	38	40	24	4	18	90	15	70	76
Enlargement of same.....	38	70	56	7	18	110	18	210	240
Cayuga and Seneca canal.....	21	40	24	4	10	90	16	70	76
Enlargement of same.....	23	70	56	7	11	110	18	210	240
Champlain canal.....	66	50	35	5	20	110	18	85	120
Glens Falls feeder.....	12	50	35	5	12	100	18	80	85
Pond above Troy dam.....	3				1				
Black River canal and feeder.....	50	42	26	4	100	90	15	70	76
Black River improvement.....	42				1	110	18	70	76
Oneida River improvement.....	20	80	60	4½	2	120	30	70	76
Oneida Lake canal.....	70	70	56	7	7	110	18	220	220
Baldwinsville and Seneca tow-path.....	5½	40	24	4	1	90	15	70	76

## ERIE CANAL

REMARKS.	Old canal (not now in existence.)	Enlargement.
Construction authorized.....	April 15, 1817.....	May 11, 1835.
Construction commenced.....	July 4, 1817.....	August, 1836.
Construction completed.....	October 26, 1825.....	September, 1862.
Estimated cost at engineer's prices.....	\$4,926,738.....	\$23, 402,803.
Actual cost of construction.....	\$7,143,789.....	\$44,465,414.
Total feet of lockage.....	675½.....	655 80-100 feet.
Length from Albany to Buffalo.....	363 miles.....	351½ miles.
Number of locks and size of chambers.....	83 locks, 90x115.....	72 locks, 110x18.
Size of prism.....	40 and 28x4.....	70 and 56x7.
Maximum dimension of boats.....	78 62-100x14 46-100x 3½ draft.....	98x17.5-12x6 ft.draft, 240 tons.
Burden of boats.....	75 tons.....	

Counties through which the Erie canal runs — Albany, Cayuga, Erie, Herkimer, Madison, Monroe, Montgomery, Niagara, Onondaga, Oneida, Orleans, Saratoga, Schenectady, and Wayne.

## LOCKS.

No. of lock.	Double or single.	Lift.	No. of lock.	Double or single.	Lift.	No. of lock.	Double or single.	Lift.
1....	Double...	15½	25....	Double...	8	49.....	Double...	6
2....	Double...	9½	26....	Double...	8	50.....	Double...	6 11-12
3....	Double...	11½	27....	Double...	8	51.....	Double...	5½
4....	Double...	11½	28....	Double...	8	52.....	Double...	11
5....	Double...	10	29....	Double...	7	53.....	Double...	6
6....	Double...	10	30....	Double...	10½	54.....	Double...	7½
7....	Double...	10	31....	Double...	6	55.....	Double...	6
8....	Double...	10	32....	Double...	8	56.....	Double...	10
9....	Double...	10	33....	Double...	6	57.....	Double...	8
10....	Double...	10	34....	Double...	8	58.....	Double...	8
11....	Double...	10	35....	Double...	8	59.....	Double...	8
12....	Double...	10	36....	Double...	10	60.....	Double...	10
13....	Double...	10	37....	Double...	10	61.....	Double...	9
14....	Double...	10	38....	Double...	9½	62.....	Double...	9
15....	Double...	10	39....	Double...	10½	63.....	Double...	9
16....	Double...	10	40....	Double...	8	64.....	Double...	10
17....	Double...	10	41....	Double...	8	65.....	Double...	10
18....	Double...	10½	42....	Double...	8	66.....	Double...	9
19....	Double...	8½	43....	Double...	8	67.....		
20....	Double...	10	44....	Double...	10½	68.....		
21....	Double...	11½	45....	Double...	10½	69.....	Double...	55 10-12
22....	Double...	11½	46....	Double...	3	70.....		
23....	Double...	8	47....	Double...	10½	71.....		
24....	Double...	8	48....	Double...	10½	72 gd. Blk. Blk. & Buf.	Double...	2



## LOCATION OF LOCKS.

COUNTIES.	Number of locks.	COUNTIES.	Number of locks.
Albany.....	1 to 18 inclusive.....	Onondaga.....	47 to 51, inclusive.
Saratoga.....	19 and 20.....	Cayuga.....	52.
Schenectady.....	21 to 25, inclusive.....	Wayne.....	53 to 60, inclusive.
Montgomery.....	26 to 34, inclusive.....	Ontario.....	61 to 66, inclusive.
Herkimer.....	35 to 45, inclusive.....	Monroe.....	67 to 71, inclusive.
Oneida.....	46.....	Orleans.....	
Madison.....		Niagara.....	

## CHAMPLAIN CANAL AND GLENS FALLS FEEDER.

Construction authorized.....	April 15, 1817.
Glens Falls feeder authorized.....	April, 1822.
Estimated cost of canal at engineer's prices.....	\$871,000.
Navigation opened from Fort Edward to Lake Champlain.....	November 24, 1819.
Canal completed from Waterford to Lake Champlain.....	1822.
Canal, cost of construction up to 1827.....	\$921,011.
Feeder, cost of construction up to 1837.....	\$91,944.
Total cost of both included improvements, exclusive of ordinary repairs, June, 1868.....	\$2,378,910.
Number of locks on canal, 20; feeder 13.....	Size, 110x18 and 100x15.
Length of canal, 66 miles; feeder, 7 miles; pond, 5 miles.....	78 miles.
Size of prism, canal and feeder.....	40 26x4.
Size authorized, chapter 213, Laws of 1860.....	50 35x5.
Total cost, including improvements and enlargements, up to 1875.....	\$4,044,000.
Counties through which the Champlain canal runs — Rensselaer, Saratoga, Warren and Washington.	
The Glens Falls feeder is located in the counties of Warren and Washington.	

## LOCKS.

CHAMPLAIN CANAL.						GLENS FALLS FEEDER.			
No.	Lift.	No.	Lift.	No.	Lift.	No.	Lift.	No.	Lift.
1.....	10½	8.....	8½	15.....	8	1.....	10	8.....	10
2.....	10½	9.....	10	16.....	7	2.....	10	9.....	10
3.....	8½	10.....	9½	17.....	2½	3.....	10	10.....	10
4.....	9	11.....	11½	18.....	9	4.....	10	11.....	11
5.....	9	12.....	9	19.....	9	5.....	10	12.....	12
6.....	9	13.....	10½	20.....	10	6.....	10	13.....	10
7.....	9½	14.....	8			7.....	10		

## BLACK RIVER CANAL FEEDER AND BLACK RIVER IMPROVEMENT.

Construction authorized.....	April 19, 1836.
Construction commenced.....	January, 1838.
Estimated cost at engineers' prices.....	\$1,068,437.
Estimated cost at contract prices.....	\$2,431,069.
Canal completed.....	1849.
Cost of construction.....	\$3,581,954.
Number and size of locks.....	109 locks; 90x15.
Length of canal to Lyons Falls.....	35 miles.
Length of river to Carthage and fall.....	42 miles; 9½ feet.
Size of prism of canal and feeder.....	42 and 28x4.
Length of navigable feeder, and fall.....	10½ miles; 6 10-100 feet
Burden of boats.....	45 to 50 tons.
Lockage of canal.....	1,082½ feet.

## LOCKS.

No.	Lift.	No.	Lift.	No.	Lift.	No.	Lift.	No.	Lift.
1.....	10	23.....	10	45.....	10	67.....	10	89.....	10
2.....	10	24.....	10	46.....	10	68.....	9	90.....	10
3.....	10	25.....	10	47.....	10	69.....	9	91.....	12
4.....	10	26.....	10	48.....	10	70.....	9	92.....	10
5.....	10	27.....	10	49.....	10	71.....	10	93.....	10
6.....	10	28.....	10	50.....	10	72.....	10	94.....	10
7.....	10	29.....	10	51.....	10	73.....	10	95.....	10
8.....	11	30.....	10	52.....	10	74.....	10	96.....	10
9.....	12	31.....	10	53.....	10	75.....	10	97.....	10
10.....	11	32.....	10	54.....	10	76.....	10	98.....	10
11.....	11	33.....	10	55.....	10	77.....	10	99.....	10
12.....	11	34.....	10	56.....	10	78.....	10	100.....	10
13.....	8	35.....	10	57.....	10	79.....	10	101.....	10½
14.....	8	36.....	10	58.....	10	80.....	9	102.....	10½
15.....	8	37.....	10	59.....	10	81.....	9	103.....	4
16.....	10	38.....	10	60.....	10	82.....	9	104.....	10
17.....	8	39.....	10	61.....	10	83.....	9	105.....	10
18.....	10	40.....	10	62.....	10	84.....	9	106.....	11
19.....	8	41.....	10	63.....	10	85.....	10	107.....	11
20.....	10	42.....	10	64.....	10	86.....	11½	108.....	12
21.....	10	43.....	10	65.....	10	87.....	10	109.....	12
22.....	10	44.....	10	66.....	10	88.....	10	.....	.....

Counties through which the Black River canal runs — Oneida and Lewis.

## ONEIDA LAKE CANAL AND ONEIDA RIVER IMPROVEMENT.

REMARKS.	Oneida Lake canal.	Oneida river improvement.
Construction authorized.....	March 22, 1832.....	April 29, 1839.
Estimated cost at engineers' prices.....	\$40,000.....	\$100,049.
Construction completed.....	1836.....	1850.
Cost of construction.....	\$450,678.....	\$368,164.
Purchased of company by State.....	May 11, 1840.....	For \$50,000.
Enlargement of locks authorized.....	Chapter 46, Laws of 1860.....	.....
Number and size of new locks.....	7, 110x18.....	2, 120x30½.
Size of prism.....	40x20x4.....	80x60x4½.
Length.....	7 miles.....	20 miles.
Feet of lockage.....	60½ feet.....	No. 1, 3 ft.; No. 2, 3½ ft.

## LOCKS.

PRESENT OLD LOCKS.						ENLARGED LOCKS AUTHORIZED.					
No.	Lift.	No.	Lift.	No.	Lift.	No.	Lift.	No.	Lift.	No.	Lift.
1.....	7½	4.....	10	6.....	7½	1.....	8½	4.....	10½	6.....	8
2.....	8½	5.....	9½	7.....	6 1-12	2.....	8½	5.....	9½	7.....	7½
3.....	9					3.....	8				

## OSWEGO CANAL.

REMARKS.	Oswego canal.	Enlarged Oswego canal.
Construction authorized.....	April 20, 1825.....	April 15, 1854.
Enlargement of locks.....		Chapter 262, Laws of 1847.
Estimated cost at engineers' prices.....	\$277,000.....	\$1,926,336.
Estimated cost at contract prices.....	\$437,000.....	\$2,051,190.
Construction completed.....	December 10, 1828.....	September, 1862.
Cost of construction.....	\$565,473.....	\$4,427,589.
Number of locks and size.....	18, 90 x 15.....	17, 110 x 18.
Feet of lockage.....	154, 85 feet.....	154, 85 feet.
Average cost of one lock.....	\$10,000.....	\$31,000.
Size of prism of canal.....	40 and 26 x 4.....	70 and 56 x 7 feet.
Guard locks.....	Six.....	Five.
Burden of boats.....	50 to 75 tons.....	230 tons.
Length of canal.....	38 miles.....	38 miles.

## LOCKS.

No.	Lift.	No.	Lift.	No.	Lift.	No.	Lift.	No.	Lift.
1.....	11	4.. }	9.6 {	8.....	11½	12.....	11½	16.....	8½
2.....	11	5.. }		9.....	7½	13.....	5.65	17.....	10½
3.....	10½	6....	7	10.....	9	14.....	9½	18.....	9½
		7....	5.866	11.....	11½	15.....	5½		

Counties through which the Oswego canal runs — Onondaga and Oswego.

## CAYUGA AND SENECA CANAL — CAYUGA INLET.

REMARKS.	Cayuga and Seneca canal.	Cayuga inlet.
Construction authorized, enlargement of locks.....	April 20, 1825.....	May 25, 1836.
Enlargement of prism.....		April 15, 1854.
Estimated cost at engineers' prices.....	\$811,188.....	\$150,000.
Estimated cost at contract prices.....	\$795,272.....	\$160,396.
Canal completed.....	November 15, 1828.....	September, 1862.
Cost of construction.....	\$2,010,320.....	\$214,000.
Number of locks and size.....	11, 110 x 18.....	1, 110 x 18.
Feet of lockage.....	83½.....	
Length and size of prism.....		24½ miles, 70 and 56 x 7.

## LOCKS.

No.	Lift.	No.	Lift.	No.	Lift.	No.	Lift.	No.	Lift.
1.....	7.28	4.....	9	6.....	9.60	8.....	* 5.70	10.....	10
2.....	7	5.....	9	7.....	6	9.....	10	11.....	3
3.....	10								

Counties through which the Cayuga and Seneca canal runs — Cayuga, Seneca and Ontario.

## ERIE CANAL.

*A List of the principal places on the canals, and their distance from in each other as adopted by the Canal Board.*

NAMES OF PLACES.	Albany.	West Troy.	Schenectady.	Fultonville.	Little Falls.	Utica.	Rome.	Syracuse.	Jordan.	Montezuma.	Lyons.	Palmyra.	Rochester.	Brockport.	Albion.	Medina.	Lockport.	Tonawanda.	Lower Black Rock.	Buffalo.
Adam's Basin.....	274	267	244	218	187	184	149	108	89	175	57	42	15	5	19	29	47	66	74	83
Albany.....			30	256	87	113	125	166	105	199	217	232	259	279	293	303	321	340	346	380
Albion.....	283	286	263	227	206	183	128	127	108	194	176	161	34	14	240	250	268	287	295	396
Aurousesville.....	53	46	126	3	24	67	72	113	132	146	164	179	295	226	240	250	268	287	295	565
Belle Isle.....	172	165	142	118	85	62	47	18	13	27	15	60	87	107	121	131	149	168	176	712
Black Rock.....	349	342	319	83	282	239	224	183	133	150	135	117	90	70	56	46	28	188	196	1
Bolivar.....	152	145	122	96	165	142	127	106	71	57	39	24	3	23	37	47	65	84	92	200
Brighton.....	256	249	226	200	169	146	134	113	84	80	62	47	20	10	24	24	42	61	69	73
Brockport.....	279	272	248	223	192	168	154	132	103	80	72	56	29	9	14	37	55	73	82	64
Brockville.....	288	281	258	232	193	178	163	143	104	79	53	37	20	10	24	34	52	71	79	83
Brockways.....	289	282	259	233	194	179	164	144	105	80	73	57	29	10	24	34	52	71	79	83
Buffalo.....	332	345	322	286	262	232	227	196	167	153	135	120	93	73	59	49	31	12	4	
Bushnell's Basin.....	248	241	215	192	161	135	123	89	63	49	31	16	11	31	45	55	73	92	100	104
Camillus.....	173	168	148	119	104	85	57	50	117	121	149	164	191	211	225	235	253	272	280	284
Canajoharie.....	104	61	138	12	19	65	57	21	35	40	42	37	84	104	118	128	146	165	173	177
Canastota.....	145	138	115	89	58	35	20	21	30	54	72	87	114	134	148	158	176	195	203	207
Canaseraga Landing.....	180	143	120	94	63	40	25	16	35	49	67	82	109	129	143	153	171	190	198	202
Canton.....	180	173	150	124	93	70	55	14	35	49	67	82	109	129	143	153	171	190	198	202
Carletonville.....	250	243	220	194	163	140	125	84	65	57	33	18	9	29	43	53	71	90	98	102
Centersville.....	192	185	162	130	103	82	67	29	34	48	66	81	67	87	101	111	129	148	156	160
Chittenango.....	151	144	121	95	64	41	27	15	34	48	66	81	67	87	101	111	129	148	156	160
Clyde.....	210	203	180	154	123	100	85	44	174	188	206	221	249	269	282	292	310	329	337	341
Coates.....	11	4	19	45	76	99	114	135	174	188	206	221	249	269	282	292	310	329	337	341
Cold Spring.....	186	179	156	130	99	67	61	20	1	13	31	46	7	2	16	26	44	63	71	75
Cooley's Basin.....	277	270	247	221	190	167	152	111	92	171	183	203	218	245	265	279	289	307	326	334
Coventry.....	136	129	106	80	49	28	11	30	49	61	86	123	143	157	167	187	204	212	216	216
Dunbarton.....	140	133	110	84	53	30	15	26	45	59	77	92	119	139	153	163	181	200	208	212
Dunbarton.....	286	289	266	240	209	186	171	130	111	97	79	64	37	17	3	7	25	44	52	86

East Arcadia.....	220	213	190	164	133	110	95	54	35	21	3	12	39	59	73	83	101	120	128	132
East Canada Creek.....	82	75	52	26	5	28	43	84	103	117	135	150	177	197	211	221	239	258	266	270
Fairport.....	244	237	214	188	156	134	119	78	59	45	146	177	188	208	222	232	250	269	277	281
Fort Plain.....	71	64	41	15	16	39	54	95	114	128	146	161	188	208	222	232	250	269	277	281
Frankfort.....	101	94	71	45	14	9	24	65	84	98	116	131	158	178	193	202	220	239	247	251
Fullmans Basin.....	245	238	215	189	158	135	120	79	60	46	181	216	203	178	164	158	265	284	292	296
Fultonville.....	56	49	26	31	19	54	69	110	129	143	161	176	203	223	237	247	265	284	292	296
Fergusons.....	106	99	76	50	19	44	19	60	79	93	111	126	153	173	187	197	215	234	242	246
Gane's Basin.....	288	285	265	239	208	185	170	149	130	116	98	83	66	36	2	8	26	15	53	57
Gaspot.....	315	308	285	259	228	205	190	149	130	116	98	83	66	36	2	8	26	15	53	57
Geddes.....	180	161	138	112	81	58	141	160	17	31	49	64	91	111	125	135	153	172	180	184
Greece (Six-Mile Grocery).....	268	259	236	210	179	156	141	160	17	31	49	64	91	111	125	135	153	172	180	184
Higginsville.....	186	169	148	125	101	78	55	10	31	50	64	82	97	124	144	158	186	205	213	217
Hindenburg.....	135	128	105	79	48	25	10	31	50	64	82	97	124	144	158	186	205	213	217	221
Hofman's Ferry.....	288	282	259	233	202	179	164	145	159	172	192	219	239	253	263	273	291	300	308	312
Holley.....	284	277	254	228	197	174	159	118	99	85	67	52	25	28	8	16	34	53	64	68
Hofman's Ferry.....	288	282	259	233	202	179	164	145	159	172	192	219	239	253	263	273	291	300	308	312
Hulberton.....	287	280	257	231	200	177	162	121	102	88	70	55	28	8	16	34	53	64	68	72
Ilion.....	185	178	155	129	98	75	60	19	87	101	119	134	161	181	195	205	233	242	250	254
Jordan.....	155	148	129	98	75	60	19	87	101	119	134	161	181	195	205	233	242	250	254	258
Junction.....	155	148	129	98	75	60	19	87	101	119	134	161	181	195	205	233	242	250	254	258
Kirkville.....	148	141	125	99	68	45	30	11	30	44	62	57	104	132	138	148	166	185	193	197
Kapowsville.....	241	234	211	185	154	131	116	75	56	42	24	9	18	38	52	62	80	99	107	111
Knawlesville.....	299	292	269	243	212	189	174	133	114	100	82	67	40	20	6	4	22	41	49	53
Lenox.....	143	136	113	87	56	33	18	23	42	56	74	89	116	136	150	160	178	197	205	209
Limestone Feeder.....	159	152	129	103	72	49	34	7	36	40	58	73	100	120	134	144	162	181	189	193
Little Falls.....	87	80	57	31	17	10	4	1	3	18	45	65	79	89	107	126	134	138	143	148
Lockport.....	207	184	158	132	104	78	55	40	29	15	3	18	45	65	79	89	107	126	134	138
Lockport.....	321	314	291	265	234	211	196	155	136	122	104	89	62	28	18	18	19	27	31	31
Lockville.....	323	316	293	267	236	213	198	157	138	124	106	91	66	40	20	6	98	117	125	129
Lock No. 35.....	253	246	223	197	166	143	128	87	68	54	36	21	94	114	128	138	156	175	183	187
Lodi.....	165	158	135	109	78	55	40	29	15	3	18	45	65	79	89	107	126	134	138	143
Lodi.....	165	158	135	109	78	55	40	29	15	3	18	45	65	79	89	107	126	134	138	143
Lodi.....	165	158	135	109	78	55	40	29	15	3	18	45	65	79	89	107	126	134	138	143
Lodi.....	165	158	135	109	78	55	40	29	15	3	18	45	65	79	89	107	126	134	138	143
Lodi.....	165	158	135	109	78	55	40	29	15	3	18	45	65	79	89	107	126	134	138	143
Lodi.....	165	158	135	109	78	55	40	29	15	3	18	45	65	79	89	107	126	134	138	143
Lodi.....	165	158	135	109	78	55	40	29	15	3	18	45	65	79	89	107	126	134	138	143
Lodi.....	165	158	135	109	78	55	40	29	15	3	18	45	65	79	89	107	126	134	138	143
Lodi.....	165	158	135	109	78	55	40	29	15	3	18	45	65	79	89	107	126	134	138	143
Lodi.....	165	158	135	109	78	55	40	29	15	3	18	45	65	79	89	107	126	134	138	143
Lodi.....	165	158	135	109	78	55	40	29	15	3	18	45	65	79	89	107	126	134	138	143
Lodi.....	165	158	135	109	78	55	40	29	15	3	18	45	65	79	89	107	126	134	138	143
Lodi.....	165	158	135	109	78	55	40	29	15	3	18	45	65	79	89	107	126	134	138	143
Lodi.....	165	158	135	109	78	55	40	29	15	3	18	45	65	79	89	107	126	134	138	143
Lodi.....	165	158	135	109	78	55	40	29	15	3	18	45	65	79	89	107	126	134	138	143
Lodi.....	165	158	135	109	78	55	40	29	15	3	18	45	65	79	89	107	126	134	138	143
Lodi.....	165	158	135	109	78	55	40	29	15	3	18	45	65	79	89	107	126	134	138	143
Lodi.....	165	158	135	109	78	55	40	29	15	3	18	45	65	79	89	107	126	134	138	143
Lodi.....	165	158	135	109	78	55	40	29	15	3	18	45	65	79	89	107	126	134	138	143
Lodi.....	165	158	135	109	78	55	40	29	15	3	18	45	65	79	89	107	126	134	138	143
Lodi.....	165	158	135	109	78	55	40	29	15	3	18	45	65	79	89	107	126	134	138	143
Lodi.....	165	158	135	109	78	55	40	29	15	3	18	45	65	79	89	107	126	134	138	143
Lodi.....	165	158	135	109	78	55	40	29	15	3	18	45	65	79	89	107	126	134	138	143
Lodi.....	165	158	135	109	78	55	40	29	15	3	18	45	65	79	89	107	126	134	138	143
Lodi.....	165	158	135	109	78	55	40	29	15	3	18	45	65	79	89	107	126	134	138	143
Lodi.....	165	158	135	109	78	55	40	29	15	3	18	45	65	79	89	107	126	134	138	143
Lodi.....	165	158	135	109	78	55	40	29	15	3	18	45	65	79	89	107	126	134	138	143
Lodi.....	165	158	135	109	78	55	40	29	15	3	18	45	65	79	89	107	126	134	138	143
Lodi.....	165	158	135	109	78	55	40	29	15	3	18	45	65	79	89	107	126	134	138	143
Lodi.....	165	158	135	109	78	55	40	29	15	3	18	45	65	79	89	107	126	134	138	143
Lodi.....	165	158	135	109	78	55	40	29	15	3	18	45	65	79	89	107	126	134	138	143
Lodi.....	165	158	135	109	78	55	40	29	15	3	18	45	65	79	89	107	126	134	138	143
Lodi.....	165	158	135	109	78	55	40	29	15	3	18	45	65	79	89	107	126	134	138	143
Lodi.....	165	158	135	109	78	55	40	29	15	3	18	45	65	79	89	107	126	134	138	143
Lodi.....	165	158	135	109	78	55	40	29	15	3	18	45	65	79	89	107	126	134	138	143
Lodi.....	165	158	135	109	78	55	40	29	15	3	18	45	65	79	89	107	126	134	138	143
Lodi.....	165	158	135	109	78	55	40	29	15	3	18	45	65	79	89	107	126	134	138	143
Lodi.....	165	158	135	109	78	55	40	29	15	3	18	45	65	79	89	107	126	134	138	143
Lodi.....	165	158	135	109	78	55	40	29	15	3	18	45	65	79	89	107	126	134	138	143
Lodi.....	165	158	135	109	78	55	40	29	15	3	18	45	65	79	89	107	126	134	138	143
Lodi.....	165	158	135	109	78	55	40	29	15	3	18	45	65	79	89	107	126	134	138	143
Lodi.....	165	158	135	109	78	55	40	29	15	3	18	45	65	79	89	107	126	134	138	143
Lodi.....	165	158	135	109	78	55	40	29	15	3	18	45	65	79	89	107	126	134	138	143
Lodi.....	165	158	135	109	78	55	40	29	15	3	18	45	65	79	89	107	126	134	138	143
Lodi.....	165	158	135	109	78	55	40	29	15	3	18	45	65	79	89	107	126	13		

## ERIE CANAL — (Concluded).

NAMES OF PLACES.	Albany.																			West Troy.																			Schenectady.																			Fultonville.																			Little Falls.																			Utica.																			Rome.																			Syracuse.																			Jordan.																			Montezuma.																			Lyons.																			Palmyra.																			Rochester.																			Brookport.																			Albion.																			Medina.																			Lockport.																			Tonawanda.																			Lower Black Rock.																			Buffalo.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
	154	225	321	182	333	205	251	244	154	147	187	227	46	39	313	259	125	118	23	5	26	5	21	299	271	264	58	35	9	20	11	36	270	239	216	201	160	101	109	123	141	127	109	94	67	47	113	127	137	156	174	182	186	18	8	12	314	322	326	230	242	109	113	162	158	341	345	233	234	236	228	29	29	239	106	83	52	6	57	26	26	48	63	104	123	137	155	170	197	217	231	241	259	278	284	235	235	235	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227

## CHAMPLAIN CANAL.

NAMES OF PLACES.	DISTANCE FROM --		
	Place to place.	Albany.	Whitehall.
Albany.....	.....	.....	73
West Troy.....	7	7	66
Junction.....	.....	7	66
Waterford.....	3	12	61
Mechanicville.....	8	20	53
Stillwater Village.....	4	24	49
Bleecker's Basin.....	2	26	47
Wilburs Basin.....	2	28	45
Van Dusen's Landing.....	5	33	40
Schuylerville.....	3	36	37
Saratoga Bridge.....	2	38	35
Fort Miller.....	3	41	32
Moses Kill.....	3	44	29
Fort Edward.....	5	49	24
Glens Falls feeder.....	2	51	22
Baker's Basin.....	1	52	21
Smith's Basin.....	5	57	16
Fort Ann.....	4	61	12
Comstock's Landing.....	4	65	8
Whitehall.....	8	73	.....

## GLENS FALLS FEEDER — CHAMPLAIN CANAL.

NAMES OF PLACES.	Distance from place to place.
Champlain canal.....	.....
Sandy Hill.....	2
Glens Falls.....	3
Head of the feeder.....	2
Head of the pond.....	5
From Junction to Whitehall.....	66
Length of Glens Falls feeder.....	12
Length of pond above Troy dam.....	3
Total.....	81



## OSWEGO CANAL.

NAMES OF PLACES.	DISTANCE FROM —		
	Place to place.	Syracuse.	Oswego.
Syracuse.....	.....	.....	38
Salina.....	2	2	36
Liverpool.....	3	5	33
Mud Lock.....	2	7	31
Cold Spring.....	1	8	30
New Bridge.....	5	13	25
Three River Point.....	2	15	23
Phoenix.....	3	17	21
Sweet's Lock.....	3	20	18
Ox Creek.....	2	23	15
Fulton.....	4	27	11
Bradock's Rapid.....	4	31	7
Tiffany's Landing.....	4	35	8
High Dam.....	1	36	2
Oswego.....	2	38	.....

## CAYUGA AND SENECA CANAL.

NAMES OF PLACES	DISTANCE FROM —		
	Place to place.	Montezuma.	Geneva.
Montezuma.....	.....	.....	21
Seneca river.....	5	5	16
South Dermott.....	2	7	14
Seneca Falls.....	3	10	11
Chamberlain's Mills.....	2	12	9
Waterloo.....	2	14	7
Teal's.....	5	19	2
Geneva.....	2	21	0
Lateral canal to East Cayuga village, two miles.....	2	.....	.....

## ONEIDA LAKE CANAL AND FEEDER.

Extends from Erie canal at Higgins, four miles west of New London, to the Oneida lake, as follows:

Canal proper. from Higgins to Wood creek.....	3¾
Wood creek, with a towing path to the Oneida creek....	2¼

## BLACK RIVER CANAL.

NAMES OF PLACES.	DISTANCE FROM —		
	Place to place.	Rome.	Boonville.
Rome.....			25
Ridge Mills.....	2	2	23
Lock No. 7.....	3	5	20
Walworth's Storehouse.....	1	6	19
Westernville.....	3	9	16
Wells Brook Aqueduct.....	2	11	14
Stringers' Creek.....	2	13	12
Lansing Hill.....	1	14	11
Lock No. 31.....	2	16	9
Lansing Kill dam or feeder.....	1	17	8
Lower Falls, Lansing Kill.....	2	19	6
Upper Falls, Lansing Kill.....	2	21	4
Lock No. 70.....	2	23	2
Boonville.....	2	25	
Sugar river.....	3	28	3
Little Falls, Black river.....	1	29	4
Port Leyden.....	3	32	7
Lock No. 91.....	1	33	8
Lyon Falls.....	2	35	10
Hawkinsville, on feeder (three miles from Boonville).....		28	3
A. Lee's on feeder.....	2	30	5
R. B. Miller's on feeder.....	1	31	6
State dam on feeder.....	4	35	10
Head of reservoir.....	2	37	12

## ONEIDA RIVER IMPROVEMENT.

Names of places.	Distance from place to place.
Three River Point.....	
Peter Scott creek.....	4
Oak Orchard.....	4
Caughdenoy.....	7
Brewerton.....	5

## GENERAL SUMMARY.

	Miles
Erie canal.....	352
Albany basin.....	1
Feeders.....	8
	361

	Miles.
Champlain canal .....	66
Glens Falls feeder.....	12
Pond above Troy dam.....	3
	<hr/>
	81
	<hr/>
Black River canal.....	35
Black River feeder and reservoir.....	12
Black River improvement.....	42
	<hr/>
	89
	<hr/>
Oneida Lake canal feeder.....	7
	<hr/>
Oswego canal .....	38
Baldwinsville side cut.....	1
Oneida river improvement.....	20
Seneca river towing path.....	5 $\frac{3}{4}$
Seneca river improvement.....	12 $\frac{1}{4}$
	<hr/>

# Report Made to the Superintendent of Public Works by the Inspectors Appointed Under the Steam Navigation Law.

## STATE OF NEW YORK. DEPARTMENT OF PUBLIC WORKS. BUREAU OF NAVIGATION.

ALBANY, N. Y., *December 18, 1911.*

Hon. C. E. TREMAN, *Supt. of Public Works, Albany, N. Y.:*

Dear Sir.—Pursuant to the provisions of the Navigation Law, we respectfully submit our report with the operations of the Bureau of Navigation for the year 1911.

<i>Licenses.</i>				
	Masters.	Pilots.	Engineers.	Pilots and Engineers.
First issue . . . . .	8	27	41	77
Renewals . . . . .	59	49	114	160
Totals . . . . .	67	76	155	237
Total number of licenses issued in 1911 . . . . .				535
Steamboats inspected . . . . .				88
Motor boats inspected . . . . .				229
Total number of boats inspected . . . . .				317
Boats inspected but not certificated, pending repairs:				
Steamboats . . . . .				7
Motor boats . . . . .				10
Total . . . . .				17

Repairs were ordered and deficiencies in equipment were found and ordered supplied on 88 boats, in 47 of these cases repairs and deficiencies in equipments were of such a nature that certificates were withheld until the orders of the inspectors were complied with and affidavits to that effect had been received.

Ninety-nine boats were inspected for the first time.

Seventy-eight boats were withdrawn and taken out of service.

We are pleased to again be able to report that during the year 1911 no lives were lost either by passengers or crews in the public service on State waters.

Fees collected and paid to the Superintendent of Public Works, \$3,891.00.

Respectfully yours,

W. P. VAN KEUREN,

G. C. WEHLING,

*Inspectors of Steam and Motor Vessels.*

---

**REPORT**  
**OF THE**  
**SUPERINTENDENT OF PUBLIC WORKS**  
**UPON THE**  
**TRADE AND TONNAGE OF THE CANALS**  
**FOR THE YEAR 1911**

---

[213]

ANNUAL ACCOUNT OF PROPERTY (in tons of 2,000 lbs.) shipped on the canals each week during the season of 1911.

DAYS.	THE FOREST—PRODUCT OF WOOD.					AGRICULTURE—PRODUCT OF ANIMALS.		
	Boards and scantling.	Timber.	Wood.	Pulp wood.	Wood pulp.	Ashes, pot and pearl.	Lard, tallow and lard oil.	Hides.
Fifteenth to twenty-second	14,974	.....	.....	1,658	168	914	.....	.....
Twenty-third to close . . .	14,676	.....	.....	3,217	130	215	.....	.....
Total May . . . . .	29,650	.....	.....	4,875	298	1,129	.....	.....
First to seventh . . . . .	9,299	.....	.....	1,627	128	458	.....	.....
Eighth to fourteenth . . . .	14,965	.....	140	1,512	.....	196	.....	.....
Fifteenth to twenty-second	12,915	50	431	7,700	.....	303	.....	.....
Twenty-third to close . . . .	12,374	520	1,680	8,795	1,106	.....	.....	.....
Total June . . . . .	49,553	570	2,251	19,634	1,234	957	.....	.....
First to seventh . . . . .	9,523	1,400	910	8,338	1,475	1,735	.....	.....
Eighth to fourteenth . . . .	13,598	40	140	7,980	2,208	84	.....	.....
Fifteenth to twenty-second	16,163	272	140	4,726	758	240	15	.....
Twenty-third to close . . . .	14,928	1,040	4,592	16,360	3,658	909	22	.....
Total July . . . . .	54,212	2,752	5,782	37,404	8,099	2,968	37	.....

First to seventh.....	14,806	660	.....	7,582	4,337	168	.....
Eighth to fourteenth.....	16,950	.....	168	10,643	1,953	893	.....
Fifteenth to twenty-second.....	14,370	200	378	7,725	1,849	.....	.....
Twenty-third to close.....	19,121	2,000	3,572	13,223	4,210	723	.....
Total August.....	65,247	2,860	4,118	39,173	12,349	1,784	.....
First to seventh.....	11,887	.....	.....	7,375	3,474	.....	.....
Eighth to fourteenth.....	17,012	.....	.....	5,278	3,016	490	.....
Fifteenth to twenty-second.....	16,487	50	280	11,889	4,409	1,353	.....
Twenty-third to close.....	19,002	32	540	16,640	4,121	1,033	.....
Total September.....	64,388	82	820	41,182	15,020	2,876	.....
First to seventh.....	12,489	2,000	5,941	5,844	5,323	1,281	15
Eighth to fourteenth.....	13,605	.....	.....	4,360	3,743	738	.....
Fifteenth to twenty-second.....	22,161	.....	.....	5,219	1,632	457	.....
Twenty-third to close.....	17,003	.....	420	5,757	654	852	.....
Total October.....	65,258	2,000	6,361	21,180	11,352	3,328	15



*Annual account of property (in tons) shipped, etc.—(Continued).*

DAYS.	THE FOREST—PRODUCT OF WOOD.						AGRICULTURE—PRODUCT OF ANIMALS.	
	Boards and scantling.	Timber.	Wood.	Pulp wood.	Wood pulp.	Ashes, pot and pearl.	Lard, tallow and lard oil.	Hides.
First to seventh . . . . .	22,659	3,360	5,040	4,057	1,137	1,751	.....	.....
Eighth to fourteenth . . . . .	19,621	2,000	9,506	2,008	3,015	1,695	.....	.....
Total November . . . . .	42,280	5,360	14,546	6,065	4,152	3,446	.....	.....
Total for the year . . . . .	370,588	13,624	33,878	169,513	52,504	16,488	37	15

*Annual account of property (in tons) shipped, etc.—(Continued).*

DAYS.	AGRICULTURE — VEGETABLE FOOD.							
	Flour.	Wheat.	Rye.	Corn.	Barley	Barley malt.	Oats.	Bran and ship stuffs
Fifteenth to twenty-second		5,759		938	991	2,234	4,688	
Twenty-third to close		900	459	896	2,092		944	
Total May		6,659	459	1,834	3,083	2,234	5,632	
First to seventh.		159		1,008			736	
Eighth to fourteenth		2,151		1,064	440		1,203	
Fifteenth to twenty-second		2,865		1,898		408	1,136	
Twenty-third to close		5,056		8,288		2,218	7,547	
Total June		10,231		12,258	440	2,626	10,622	
First to seventh.		1,197		3,892		228	1,774	1
Eighth to fourteenth		7,183	977	4,560			2,209	
Fifteenth to twenty-second		2,880		4,286		1,450	1,517	1
Twenty-third to close		2,397		3,489			3,316	
Total July		13,657	977	16,227		1,678	8,816	2

*Annual account of property (in tons) shipped, etc.—(Continued).*

DAYS.	AGRICULTURE—VEGETABLE FOOD.							
	Flour.	Wheat.	Rye.	Corn.	Barley.	Barley malt.	Oats.	Bran and ship stuffs
First to seventh . . . . .	.....	3,576	.....	6,437	.....	862	2,760	.....
Eighth to fourteenth . . . . .	.....	11,050	.....	1,890	.....	408	1,947	.....
Fifteenth to twenty-second . . . . .	.....	7,864	.....	2,003	.....	1,034	2,853	1
Twenty-third to close . . . . .	.....	11,944	465	1,744	.....	.....	972	.....
Total August . . . . .	.....	34,434	465	12,074	.....	2,304	8,532	1
First to seventh . . . . .	.....	9,915	476	2,450	1,063	828	1,014	.....
Eighth to fourteenth . . . . .	.....	5,451	.....	2,935	478	.....	989	.....
Fifteenth to twenty-second . . . . .	29	10,939	.....	5,583	167	.....	1,179	.....
Twenty-third to close . . . . .	.....	9,521	.....	3,454	837	187	1,294	.....
Total September . . . . .	29	35,826	476	14,422	2,545	1,015	4,476	.....

First to seventh.....	5,504	.....	2,721	1,327	833	6,754	.....
Eighth to fourteenth.....	3,354	.....	3,143	863	447	3,879	.....
Fifteenth to twenty-second	4,969	.....	3,483	697	1,049	3,270	.....
Twenty-third to close....	9,910	.....	1,652	4,474	.....	3,844	.....
Total October.....	23,737	.....	10,999	7,361	2,329	17,747	.....
First to seventh.....	11,637	140	1,761	3,882	547	2,527	.....
Eighth to fourteenth.....	7,592	.....	1,428	2,749	1,854	3,865	.....
Total November.....	19,229	140	3,189	6,631	2,401	6,392	.....
Total for the year...	29	2,517	71,003	20,060	14,587	62,217	3

*Annual account of property (in tons) shipped, etc.—(Continued).*

DAYS.	AGRICULTURE — VEGETABLE FOOD.					ALL OTHER AGRICULTURAL PRODUCTS.			
	Peas and beans.	Apples.	Potatoes.	Dried fruit.	Hemp.	Clover and grass seed.	Flax seed.	Hay.	
Fifteenth to twenty-second	.....	.....	.....	17	638	78	.....	620	
Twenty-third to close	.....	.....	.....	.....	.....	10	.....	2,011	
Total May	.....	.....	.....	17	638	88	.....	2,631	
First to seventh	.....	.....	.....	.....	.....	.....	.....	1,002	
Eighth to fourteenth	.....	.....	.....	.....	.....	.....	.....	1,355	
Fifteenth to twenty-second	.....	.....	.....	.....	.....	.....	.....	1,790	
Twenty-third to close	.....	.....	.....	.....	15	.....	.....	2,283	
Total June	.....	.....	.....	.....	15	.....	.....	6,430	
First to seventh	.....	.....	.....	.....	.....	.....	.....	1,676	
Eighth to fourteenth	.....	.....	.....	.....	112	.....	.....	1,727	
Fifteenth to twenty-second	.....	.....	.....	.....	380	.....	.....	936	
Twenty-third to close	81	.....	.....	.....	139	.....	.....	804	
Total July	81	.....	.....	.....	631	.....	.....	5,143	

First to seventh.....	13	.....	.....	.....	.....	33	.....	.....	455
Eighth to fourteenth.....	.....	.....	.....	.....	.....	69	.....	8	450
Fifteenth to twenty-second.....	.....	.....	.....	.....	.....	370	.....	56	494
Twenty-third to close.....	.....	.....	.....	.....	.....	91	.....	.....	780
Total August.....	13	.....	.....	.....	.....	563	64	.....	2,179
First to seventh.....	.....	.....	.....	.....	.....	30	.....	.....	381
Eighth to fourteenth.....	16	.....	.....	.....	.....	10	.....	44	1,462
Fifteenth to twenty-second.....	18	.....	.....	.....	.....	.....	.....	50	1,159
Twenty-third to close.....	.....	.....	.....	.....	.....	.....	.....	37	2,181
Total September.....	34	.....	.....	.....	.....	40	131	54	5,183
First to seventh.....	144	.....	.....	.....	.....	98	.....	.....	1,218
Eighth to fourteenth.....	18	.....	.....	.....	.....	40	.....	.....	1,622
Fifteenth to twenty-second.....	.....	.....	.....	.....	.....	17	.....	364	1,930
Twenty-third to close.....	2	.....	.....	.....	.....	96	.....	131	2,263
Total October.....	164	.....	.....	.....	.....	251	495	.....	7,033

*Annual account of property (in tons) shipped, etc.—(Continued).*

DAYS.	AGRICULTURE — VEGETABLE FOOD.				ALL OTHER AGRICULTURAL PRODUCTS.			
	Pears and beans.	Apples.	Potatoes.	Dried fruit.	Hemp.	Clover and grass seed.	Flax seed.	Hay.
First to seventh.....	.....	325	288	.....	.....	.....	.....	2,548
Eighth to fourteenth.....	.....	14	1,457	.....	.....	.....	.....	4,370
Total November.....	.....	339	1,745	.....	.....	.....	.....	6,918
Total for the year.....	292	339	1,745	162	2,138	778	54	35,517

*Annual account of property (in tons) shipped, etc.—(Continued).*

DAYS.	MANUFACTURES.							
	Domestic spirits.	Furniture.	Pig iron.	Castings and iron ware.	Domestic woollens.	Domestic cottons.	Domestic salt.	Foreign salt.
Fifteenth to twenty-second	59	.....	686	.....	81	1	3,809	.....
Twenty-third to close	28	.....	.....	.....	.....	.....	1,866	.....
Total May	87	.....	686	.....	81	1	5,675	.....
First to seventh	.....	.....	.....	.....	.....	.....	4,468	.....
Eighth to fourteenth	.....	.....	463	.....	.....	.....	4,180	.....
Fifteenth to twenty-second	.....	.....	469	.....	.....	.....	4,073	.....
Twenty-third to close	.....	.....	1,692	.....	.....	.....	7,099	364
Total June	.....	.....	2,624	.....	.....	.....	19,820	364
First to seventh	.....	5	3,802	.....	.....	.....	3,087	.....
Eighth to fourteenth	.....	.....	2,925	.....	.....	.....	1,394	.....
Fifteenth to twenty-second	.....	.....	.....	.....	.....	.....	6,263	.....
Twenty-third to close	.....	.....	1,936	.....	.....	.....	8,236	.....
Total July	.....	5	8,663	.....	.....	.....	18,980	.....



*Annual account of property (in tons) shipped, etc.—(Continued).*

DAYS.	MANUFACTURES.							
	Domestic spirits.	Furniture.	Pig iron.	Castings and iron ware.	Domestic woolens.	Domestic cottons.	Domestic salt.	Foreign salt.
First to seventh.....	2	.....	230	.....	.....	.....	6,503	.....
Eighth to fourteenth.....	.....	.....	.....	.....	.....	.....	4,049	.....
Fifteenth to twenty-second.....	.....	.....	1,877	.....	.....	.....	6,721	.....
Twenty-third to close.....	.....	.....	2,296	.....	.....	.....	3,851	.....
Total August.....	2	.....	4,403	.....	.....	.....	21,124	.....
First to seventh.....	.....	2	2,868	.....	.....	.....	5,371	.....
Eighth to fourteenth.....	15	.....	3,091	.....	.....	.....	3,020	.....
Fifteenth to twenty-second.....	.....	.....	2,649	.....	.....	.....	5,351	.....
Twenty-third to close.....	.....	.....	707	.....	.....	.....	2,807	.....
Total September.....	15	2	9,315	.....	.....	.....	16,549	.....

First to seventh. ....	85	.....	1,415	.....	.....	.....	.....	1,868	379
Eighth to fourteenth. ....	90	.....	.....	.....	.....	.....	.....	6,439	.....
Fifteenth to twenty-second	26	.....	477	.....	.....	.....	.....	2,354	.....
Twenty-third to close ....	111	.....	1,317	.....	285	.....	.....	1,852	.....
∞ Total October. ....	312	.....	3,209	.....	285	.....	44	12,513	379
First to seventh. ....	.....	.....	1,405	.....	224	.....	.....	2,580	.....
Eighth to fourteenth. ....	.....	.....	1,163	.....	.....	.....	.....	6,951	.....
Total November. ....	.....	.....	2,568	.....	224	.....	.....	9,531	.....
Total for the year. ....	416	7	31,468	.....	509	81	45	104,192	743

*Annual account of property (in tons) shipped, etc.—(Continued).*

DAYS.	MERCHANDISE.						
	Sugar.	Molasses.	Coffee.	Iron and steel.	Flint, enamel, crockery and glassware.	All other merchandise.	Ice.
Fifteenth to twenty-second.....	2,348	85	23	.....	.....	8,885	280
Twenty-third to close.....	698	26	.....	.....	.....	5,375	7,560
Total May.....	3,046	111	23	.....	.....	14,260	7,840
First to seventh.....	952	.....	2	.....	.....	2,495	2,800
Eighth to fourteenth.....	206	.....	.....	.....	.....	4,302	4,928
Fifteenth to twenty-second.....	176	.....	.....	.....	.....	5,689	7,168
Twenty-third to close.....	766	68	118	.....	.....	9,703	14,910
Total June.....	2,100	68	120	.....	.....	22,189	29,806
First to seventh.....	400	.....	.....	.....	.....	3,886	3,921
Eighth to fourteenth.....	670	.....	91	.....	.....	3,840	4,620
Fifteenth to twenty-second.....	942	.....	60	30	.....	5,442	2,800
Twenty-third to close.....	685	.....	96	.....	49	10,278	13,234
Total July.....	2,697	.....	247	30	49	23,446	24,575

First to seventh.....	142	.....	64	.....	.....	1,933
Eighth to fourteenth.....	797	42	120	30	17	4,670
Fifteenth to twenty-second.....	6	.....	.....	.....	.....	9,699
Twenty-third to close.....	611	.....	144	.....	.....	3,920
Total August.....	1,556	42	328	30	17	20,222
First to seventh.....	312	.....	18	30	.....	.....
Eighth to fourteenth.....	178	34	40	.....	.....	.....
Fifteenth to twenty-second.....	18	.....	51	18	.....	.....
Twenty-third to close.....	54	20	20	.....	.....	.....
Total September.....	562	54	129	48	.....	.....
First to seventh.....	.....	.....	34	168	.....	.....
Eighth to fourteenth.....	.....	.....	.....	.....	.....	.....
Fifteenth to twenty-second.....	39	39	185	.....	.....	.....
Twenty-third to close.....	17	19	140	28	.....	.....
Total October.....	56	58	359	196	.....	.....

*Annual account of property (in tons) shipped, etc.—(Continued).*

DAYS.	MERCHANDISE.						
	Sugar.	Molasses.	Coffee.	Iron and steel.	Flint, enamel, crookery and glassware.	All other merchandise.	Ice.
First to seventh .....	.....	.....	2	.....	.....	5,992	.....
Eighth to fourteenth .....	.....	.....	.....	20	.....	6,570	.....
Total November .....	.....	.....	2	20	.....	12,562	.....
Total for the year .....	10,017	333	1,208	324	66	154,481	82,443

*Annual account of property (in tons) shipped, etc.—(Continued).*

DAYS.	OTHER ARTICLES.							
	Stone, lime and clay.	Phosphate.	MINERAL COAL.		Iron ore.	Sundries.	Total tons.	Total miles boats cleared.
			Anthracite.	Bituminous.				
Fifteenth to twenty-second	26, 165	.....	30, 302	8, 111	.....	1, 104	115, 616	88, 669
Twenty-third to close . . .	37, 895	.....	29, 000	7, 030	336	398	115, 762	36, 307
Total May . . . . .	64, 060	.....	59, 302	15, 141	336	1, 502	231, 378	124, 976
First to seventh. . . . .	19, 318	504	32, 151	4, 086	336	539	82, 068	26, 554
Eighth to fourteenth. . . .	21, 954	555	10, 222	3, 139	140	301	73, 416	32, 348
Fifteenth to twenty-second	27, 652	.....	15, 239	3, 545	907	156	94, 570	35, 812
Twenty-third to close . . .	50, 546	.....	19, 331	6, 042	336	905	161, 762	78, 112
Total June. . . . .	119, 470	1, 059	76, 943	16, 812	1, 719	1, 901	411, 816	172, 826
First to seventh. . . . .	40, 080	.....	18, 030	3, 585	331	810	110, 086	42, 873
Eighth to fourteenth. . . .	25, 437	.....	5, 588	4, 085	.....	726	90, 194	52, 936
Fifteenth to twenty-second	29, 451	1, 425	2, 440	7, 716	504	1, 811	92, 648	55, 033
Twenty-third to close . . .	81, 071	1, 059	10, 161	4, 077	1, 232	2, 122	185, 971	79, 116
Total July . . . . .	176, 039	2, 484	36, 219	19, 463	2, 067	5, 469	478, 899	229, 958

*Annual account of property (in tons) shipped, etc.—(Continued).*

DAYS.	OTHER ARTICLES.						
	Stone, lime and clay.	Phosphate.	MINERAL COAL.		Iron ore.	Sundries.	Total tons.
			Anthracite.	Bituminous.			
First to seventh.....	40,283	2,255	11,338	7,156	280	1,163	116,879
Eighth to fourteenth.....	35,205	.....	4,824	9,701	.....	941	112,367
Fifteenth to twenty-second.....	37,885	.....	3,725	7,268	.....	147	112,751
Twenty-third to close.....	94,530	1,362	7,314	11,005	134	792	193,942
Total August.....	207,903	3,617	27,201	35,130	414	3,043	535,939
First to seventh.....	43,246	.....	7,575	7,543	823	968	112,446
Eighth to fourteenth.....	34,063	1,081	7,621	9,153	784	1,250	100,930
Fifteenth to twenty-second.....	84,082	336	3,018	4,642	336	991	158,761
Twenty-third to close.....	73,736	704	9,789	4,864	330	977	165,723
Total September.....	235,127	2,121	28,003	26,202	2,273	4,186	537,860
							265,079

First to seventh.....	49,254	694	9,718	12,755	806	2,303	138,898	68,946
Eighth to fourteenth.....	34,352	392	4,104	4,150	1,486	2,240	93,367	49,231
Fifteenth to twenty-second	44,318	1,847	7,059	9,714	1,432	6,110	125,532	64,720
Twenty-third to close....	98,007	673	8,686	13,455	.....	2,706	188,232	82,131
Total October.....	225,931	3,606	29,567	40,074	3,724	13,359	546,029	265,028
First to seventh.....	37,792	.....	14,711	14,008	1,182	1,843	141,398	66,045
Eighth to fourteenth.....	104,242	.....	20,981	11,437	840	371	213,749	62,830
Total November.....	142,034	.....	35,692	25,445	2,022	2,214	355,147	128,875
Total for the year....	1,170,564	12,887	292,927	178,267	12,555	31,674	3,097,068	1,463,121



ANNUAL STATEMENT showing the total quantity (in tons of 2,000 lbs.) of way freight going east during the season of 1911.

OFFICES.	THE FOREST — PRODUCT OF WOOD.					AGRICULTURE — VEGETABLE FOOD.		
	Boards and scantling.	Timber.	Wood.	Pulp wood.	Wood pulp.	Ashes, pot and pearl.	Wheat.	Rye.
Albany.....	2,047	.....	.....	.....	.....	.....	.....	.....
West Troy.....	1,131	933	.....	.....	.....	.....	.....	.....
Rome.....	330	.....	1,314	.....	.....	.....	.....	.....
Syracuse.....	84	.....	.....	.....	.....	13,524	339	.....
Rochester.....	.....	.....	.....	.....	.....	.....	.....	.....
Tonawanda.....	69,708	.....	.....	.....	.....	.....	.....	.....
Buffalo.....	109,685	.....	.....	.....	.....	.....	40,878	.....
Waterford.....	26,481	.....	.....	.....	.....	.....	.....	140
Whitehall.....	900	11,160	25,584	148,658	25,271	.....	.....	.....
Oswego.....	.....	.....	.....	20,855	.....	.....	.....	.....
Waterloo.....	.....	.....	.....	.....	.....	.....	.....	.....
Boonville.....	100	.....	.....	.....	.....	.....	.....	.....
Total.....	210,466	12,093	32,652	169,513	25,271	13,524	41,217	140

*Way freight (in tons) going east, etc.—(Continued).*

OFFICES.	AGRICULTURE — VEGETABLE FOOD.							
	Corn.	Barley.	Barley malt.	Oats.	Bran and ship stuffs.	Apples.	Pota toes.	Dried fruit.
Albany.....	.....	.....	.....	.....	.....	.....	.....	.....
West Troy.....	.....	.....	.....	.....	.....	.....	.....	.....
Rome.....	.....	.....	.....	.....	.....	.....	240	.....
Syracuse.....	.....	167	2,397	.....	.....	128	75	.....
Rochester.....	7,874	.....	.....	.....	.....	.....	.....	.....
Tonawanda.....	.....	.....	.....	.....	.....	.....	.....	.....
Buffalo.....	36,761	5,695	.....	22,199	.....	.....	.....	.....
Waterford.....	.....	.....	.....	.....	.....	14	1,217	.....
Whitehall.....	.....	.....	.....	.....	.....	.....	.....	.....
Oswego.....	.....	.....	.....	.....	.....	.....	.....	.....
Watertown.....	.....	.....	.....	.....	.....	.....	.....	35
Boonville.....	.....	.....	.....	.....	3	.....	243	.....
Total.....	44,635	5,862	2,397	22,199	3	142	1,775	35

*Way freight (in tons) going east, etc.—(Continued).*

OFFICES.	All other agricultural products — Hay	MANUFACTURES.				MERCHANDISE.	
		Furniture.	Pig iron.	Castings and iron ware.	Domestic salt.	Iron and steel.	All other merchandise.
Albany.....	.....	.....	.....	.....	.....	.....	.....
West Troy.....	4,438	.....	.....	.....	.....	.....	12,945
Rome.....	.....	.....	.....	.....	.....	.....	17,113
Syracuse.....	.....	2	.....	.....	69,918	80	4,705
Rochester.....	.....	.....	474	.....	17,790	.....	375
Tonawanda.....	.....	.....	463	.....	.....	.....	8,505
Buffalo.....	.....	.....	941	.....	.....	.....	3,691
Waterford.....	1,481	.....	.....	.....	.....	.....	5
Whitehall.....	.....	.....	.....	.....	.....	.....	55
Oswego.....	.....	.....	.....	.....	.....	.....	1,573
Waterloo.....	.....	.....	.....	.....	16,484	.....	.....
Boonville.....	.....	.....	.....	285	.....	.....	.....
Total.....	5,919	2	1,878	285	104,192	80	48,967

*Way freight (in tons) going east, etc.—(Concluded).*

OFFICES.	OTHER ARTICLES.					Total tons.
	Ice.	Stone, lime and clay.	Anthracite coal.	Bituminous coal.	Sundries.	
Albany.....	.....	11	.....	.....	.....	2,058
West Troy.....	61,040	13,697	496	25	178	81,938
Rome.....	.....	71,911	26,763	30,963	.....	144,466
Syracuse.....	15,112	36,172	39,030	40,616	17,354	252,111
Rochester.....	.....	102,284	10,934	21,261	.....	165,322
Tonawanda.....	.....	84,020	.....	4,072	115	158,753
Buffalo.....	.....	286,575	.....	.....	674	511,913
Waterford.....	6,290	22,204	.....	.....	2,895	70,167
Whitehall.....	.....	105,420	.....	.....	13	317,011
Oswego.....	.....	6,130	.....	.....	.....	27,040
Waterloo.....	.....	9,505	2,581	28,371	.....	58,549
Boonville.....	.....	66,716	.....	.....	.....	67,347
Total.....	82,442	804,645	79,804	125,308	21,229	1,856,675

*Annual account of property (in tons) shipped, etc.—(Continued).*

DAYS.	MERCHANDISE.						
	Sugar.	Molasses.	Coffee.	Iron and steel.	Flint, enamel, crockery and glassware.	All other merchandise.	Ice.
Fifteenth to twenty-second.....	2,348	85	23	.....	.....	8,885	280
Twenty-third to close.....	698	26	.....	.....	.....	5,375	7,560
Total May.....	3,046	111	23	.....	.....	14,260	7,840
First to seventh.....	952	.....	2	.....	.....	2,495	2,800
Eighth to fourteenth.....	206	.....	.....	.....	.....	4,302	4,928
Fifteenth to twenty-second.....	176	.....	.....	.....	.....	5,689	7,168
Twenty-third to close.....	766	68	118	.....	.....	9,703	14,910
Total June.....	2,100	68	120	.....	.....	22,189	29,806
First to seventh.....	400	.....	.....	.....	.....	3,886	3,921
Eighth to fourteenth.....	670	.....	91	.....	.....	3,840	4,620
Fifteenth to twenty-second.....	942	.....	60	30	.....	5,442	2,800
Twenty-third to close.....	685	.....	96	.....	49	10,278	13,234
Total July.....	2,697	.....	247	30	49	23,446	24,575

First to seventh. ....	142	.....	64	.....	.....	3,841	1,933
Eighth to fourteenth. ....	797	42	120	30	17	5,542	4,670
Fifteenth to twenty-second. ....	6	.....	.....	.....	.....	6,282	9,699
Twenty-third to close. ....	611	.....	144	.....	.....	9,082	3,920
Total August. ....	1,556	42	328	30	17	24,747	20,222
First to seventh. ....	312	.....	18	30	.....	4,797	.....
Eighth to fourteenth. ....	178	34	40	.....	.....	3,419	.....
Fifteenth to twenty-second. ....	18	.....	51	18	.....	3,677	.....
Twenty-third to close. ....	54	20	20	.....	.....	12,782	.....
Total September. ....	562	54	129	48	.....	24,675	.....
First to seventh. ....	.....	.....	34	168	.....	7,875	.....
Eighth to fourteenth. ....	.....	.....	.....	.....	.....	4,250	.....
Fifteenth to twenty-second. ....	39	39	185	.....	.....	6,684	.....
Twenty-third to close. ....	17	19	140	28	.....	13,793	.....
Total October. ....	56	58	359	196	.....	32,602	.....

*Annual account of property (in tons) shipped, etc.—(Continued).*

DAYS.	MERCHANDISE.						
	Sugar.	Molasses.	Coffee.	Iron and steel.	Flint, enamel, crockery and glassware.	All other merchandise.	Ice.
First to seventh.....	.....	.....	2	.....	.....	5,992	.....
Eighth to fourteenth.....	.....	.....	.....	20	.....	6,570	.....
Total November.....	.....	.....	2	20	.....	12,562	.....
Total for the year.....	10,017	333	1,208	324	66	154,481	82,443

*Annual account of property (in tons) shipped, etc.—(Continued).*

DAYS.	OTHER ARTICLES.						
	Stone, lime and clay.	MINERAL COAL.		Iron ore.	Sundries.	Total tons.	Total miles boats cleared.
		Phosphate.	Anthracite.				
Fifteenth to twenty-second	26,165		30,302	8,111	1,104	115,616	88,669
Twenty-third to close . . . .	37,895		29,000	7,030	398	115,762	36,307
Total May . . . . .	64,060		59,302	15,141	1,502	231,378	124,976
First to seventh. . . . .	19,318	504	32,151	4,086	539	82,068	26,554
Eighth to fourteenth. . . . .	21,954	555	10,222	3,139	301	73,416	32,348
Fifteenth to twenty-second	27,652		15,239	3,545	156	94,570	35,812
Twenty-third to close . . . .	50,546		19,331	6,042	905	161,762	78,112
Total June. . . . .	119,470	1,059	76,943	16,812	1,901	411,816	172,826
First to seventh. . . . .	40,080		18,030	3,585	810	110,086	42,873
Eighth to fourteenth. . . . .	25,437		5,588	4,085	726	90,194	52,936
Fifteenth to twenty-second	29,451	1,425	2,440	7,716	1,811	92,648	55,033
Twenty-third to close . . . .	81,071	1,059	10,161	4,077	2,122	185,971	79,116
Total July . . . . .	176,039	2,484	36,219	19,463	5,469	478,899	229,958



*Annual account of property (in tons) shipped, etc.—(Continued).*

DAYS.	OTHER ARTICLES.						
	Stone, lime and clay.	MINERAL COAL.		Iron ore.	Sundries.	Total tons.	Total miles boats cleared.
		Phosphate.	Anthracite.				
First to seventh . . . . .	40,283	2,255	11,338	280	1,163	116,879	64,084
Eighth to fourteenth . . . . .	35,205	.....	4,824	.....	941	112,367	64,180
Fifteenth to twenty-second . . . . .	37,885	.....	3,725	.....	147	112,751	65,311
Twenty-third to close . . . . .	94,530	1,362	7,314	134	792	193,942	82,804
Total August . . . . .	207,903	3,617	27,201	414	3,043	535,939	276,379
First to seventh . . . . .	43,246	.....	7,575	823	968	112,446	61,934
Eighth to fourteenth . . . . .	34,063	1,081	7,621	784	1,250	100,930	63,569
Fifteenth to twenty-second . . . . .	84,082	336	3,018	336	991	158,761	64,225
Twenty-third to close . . . . .	73,736	704	9,789	330	977	165,723	75,351
Total September . . . . .	235,127	2,121	28,003	2,273	4,186	537,860	265,079

First to seventh.....	49,254	694	9,718	12,755	806	2,303	138,898	68,946
Eighth to fourteenth.....	34,352	392	4,104	4,150	1,486	2,240	93,367	49,231
Fifteenth to twenty-second	44,318	1,847	7,059	9,714	1,432	6,110	125,532	64,720
Twenty-third to close.....	98,007	673	8,686	13,455	.....	2,706	188,232	82,131
Total October.....	225,931	3,606	29,567	40,074	3,724	13,359	546,029	265,028
First to seventh.....	37,792	.....	14,711	14,008	1,182	1,843	141,398	66,045
Eighth to fourteenth.....	104,242	.....	20,981	11,437	840	371	213,749	62,830
Total November.....	142,034	.....	35,692	25,445	2,022	2,214	355,147	128,875
Total for the year.....	1,170,564	12,887	292,927	178,267	12,555	31,674	3,097,068	1,463,121

ANNUAL STATEMENT showing the total quantity (in tons of 2,000 lbs.) of way freight going east during the season of 1911.

OFFICES.	THE FOREST — PRODUCT OF WOOD.					AGRICULTURE — VEGETABLE FOOD.		
	Boards and scantling.	Timber.	Wood.	Pulp wood.	Wood pulp.	Ashes, pot and pearl.	Wheat.	Rye.
Albany.....	2,047							
West Troy.....	1,131	933						
Rome.....	330		1,314					
Syracuse.....	84					13,524	339	
Rochester.....								
Tonawanda.....	69,708							
Buffalo.....	109,685						40,878	
Waterford.....	26,481		5,754					140
Whitehall.....	900	11,160	25,584	148,658	25,271			
Oswego.....				20,855				
Waterloo.....								
Boonville.....	100							
Total.....	210,466	12,093	32,652	169,513	25,271	13,524	41,217	140

*Way freight (in tons) going east, etc.—(Continued).*

OFFICES.	AGRICULTURE — VEGETABLE FOOD.							
	Corn.	Barley.	Barley malt.	Oats.	Bran and ship stuffs.	Apples.	Potatoes.	Dried fruit.
Albany.....	.....	.....	.....	.....	.....	.....	.....	.....
West Troy.....	.....	.....	.....	.....	.....	.....	.....	.....
Rome.....	.....	.....	.....	.....	.....	.....	240	.....
Syracuse.....	.....	167	2,397	.....	.....	128	75	.....
Rochester.....	7,874	.....	.....	.....	.....	.....	.....	.....
Tonawanda.....	.....	.....	.....	.....	.....	.....	.....	.....
Buffalo.....	36,761	5,695	.....	22,199	.....	.....	.....	.....
Waterford.....	.....	.....	.....	.....	.....	14	1,217	.....
Whitehall.....	.....	.....	.....	.....	.....	.....	.....	.....
Oswego.....	.....	.....	.....	.....	.....	.....	.....	.....
Watertown.....	.....	.....	.....	.....	.....	.....	.....	35
Boonville.....	.....	.....	.....	.....	3	.....	243	.....
Total.....	44,635	5,862	2,397	22,199	3	142	1,775	35

*Way freight (in tons) going east, etc.—(Continued).*

OFFICES.	All other agricultural products — Hay	MANUFACTURES.				MERCHANDISE.	
		Furniture.	Pig iron.	Castings and iron ware.	Domestic salt.	Iron and steel.	All other merchandise.
Albany.....	.....	.....	.....	.....	.....	.....	.....
West Troy.....	4,438	.....	.....	.....	.....	.....	.....
Rome.....	.....	.....	.....	.....	.....	.....	12,945
Syracuse.....	.....	2	.....	.....	69,918	80	17,113
Rochester.....	.....	.....	474	.....	17,790	.....	4,705
Tonawanda.....	.....	.....	463	.....	.....	.....	375
Buffalo.....	.....	.....	941	.....	.....	.....	8,505
Waterford.....	1,481	.....	.....	.....	.....	.....	3,691
Whitehall.....	.....	.....	.....	.....	.....	.....	5
Oswego.....	.....	.....	.....	.....	.....	.....	55
Waterloo.....	.....	.....	.....	.....	16,484	.....	1,573
Boonville.....	.....	.....	.....	285	.....	.....	.....
Total.....	5,919	2	1,878	285	104,192	80	48,967

*Way freight (in tons) going east, etc.—(Concluded).*

OFFICES.	OTHER ARTICLES.					Total tons.
	Ice.	Stone, lime and clay.	Anthracite coal.	Bituminous coal.	Sundries.	
Albany.....	.....	11	.....	.....	.....	2,058
West Troy.....	61,040	13,697	496	25	178	81,938
Rome.....	.....	71,911	26,763	30,963	.....	144,466
Syracuse.....	15,112	36,172	39,030	40,616	17,354	252,111
Rochester.....	.....	102,284	10,934	21,261	.....	165,322
Tonawanda.....	.....	84,020	.....	4,072	115	158,753
Buffalo.....	.....	286,575	.....	.....	674	511,913
Waterford.....	6,290	22,204	.....	.....	2,895	70,167
Whitehall.....	.....	105,420	.....	.....	13	317,011
Oswego.....	.....	6,130	.....	.....	.....	27,040
Watloo.....	.....	9,505	2,581	28,371	.....	58,549
Boonville.....	.....	66,716	.....	.....	.....	67,347
Total.....	82,442	804,645	79,804	125,308	21,229	1,856,675

ANNUAL STATEMENT showing the total quantity (in tons of 2,000 lbs.) of way freight going west during the season of 1911.

OFFICES.	THE FOREST—PRODUCT OF WOOD.				AGRICULTURE—VEGETABLE FOOD.			
	Boards and scantling.	Timber.	Wood.	Wood pulp.	Ashes, pot and pearl.	Wheat.	Rye.	Corn.
Albany.....	3,213	.....	.....	.....	.....	.....	.....	.....
West Troy.....	5,600	.....	316	.....	662	.....	.....	.....
Rome.....	1,530	.....	406	.....	.....	.....	.....	56
Syracuse.....	2,464	.....	406	.....	1,517	210	.....	.....
Rochester.....	.....	32	.....	.....	.....	120	.....	.....
Tonawanda.....	.....	.....	.....	.....	.....	.....	.....	.....
Buffalo.....	.....	.....	.....	.....	.....	.....	.....	.....
Waterford.....	1,042	1,460	.....	24,019	.....	.....	1,436	.....
Whitehall.....	133	.....	.....	.....	.....	.....	.....	.....
Oswego.....	.....	.....	.....	.....	.....	.....	.....	.....
Watertown.....	.....	.....	.....	.....	.....	.....	.....	.....
Boonville.....	.....	.....	.....	.....	.....	.....	.....	.....
Total.....	13,982	1,492	1,128	24,019	2,179	330	1,436	56

*Way freight (in tons) going west, etc.—(Continued).*

OFFICES.	AGRICULTURE — VEGETABLE FOOD.				All other agricultural products — Hay.	MANUFACTURES	
	Barley.	Oats.	Peas and beans.	Dried fruit.		Domestic spirits.	Furniture.
Albany.....	.....	.....	.....	.....	.....	.....	.....
West Troy.....	1,419	.....	4	12	.....	2	.....
Rome.....	.....	48	.....	.....	.....	.....	.....
Syracuse.....	3,554	.....	.....	.....	34	.....	5
Rochester.....	.....	.....	.....	.....	.....	.....	.....
Tonawanda.....	.....	.....	.....	.....	.....	.....	.....
Buffalo.....	.....	.....	.....	.....	.....	.....	.....
Waterford.....	.....	.....	.....	.....	.....	.....	.....
Whitehall.....	.....	.....	.....	.....	.....	.....	.....
Oswego.....	.....	.....	.....	.....	.....	.....	.....
Waterloo.....	.....	.....	.....	.....	.....	.....	.....
Boonville.....	.....	.....	.....	.....	.....	.....	.....
Total.....	4,973	48	4	12	34	2	5



*Way freight (in tons) going west, etc.—(Continued).*

OFFICES.	MERCHANDISE.				
	Sugar.	Molasses.	Coffee.	Iron and steel.	All other merchandise.
Albany.....	.....	.....	.....	.....	.....
West Troy.....	6,363	69	79	168	6,337
Rome.....	.....	.....	.....	.....	12,900
Syracuse.....	80	.....	.....	.....	16,975
Rochester.....	.....	.....	.....	.....	6,491
Tonawanda.....	.....	.....	.....	.....	19
Buffalo.....	.....	.....	.....	.....	.....
Waterford.....	.....	.....	.....	.....	7,698
Whitehall.....	.....	.....	.....	.....	.....
Oswego.....	.....	.....	.....	.....	.....
Waterloo.....	.....	.....	.....	.....	.....
Boonville.....	.....	.....	.....	.....	.....
Total.....	6,443	69	79	168	50,420

Way freight (in tons) going west, etc.—(Concluded).

OFFICES.	OTHER ARTICLES.						Total tons.
	Stone, lime and clay.	Rock and super-phosphate.	Anthracite coal.	Bituminous coal.	Iron ore.	Sundries.	
Albany.....	.....	.....	336	.....	.....	.....	3,549
West Troy.....	62,712	10,223	42,227	788	2,654	1,749	141,384
Rome.....	126,158	.....	8,999	17,471	.....	.....	167,568
Syracuse.....	31,855	.....	19,324	13,597	.....	1,525	91,546
Rochester.....	45,900	.....	1,272	3,116	.....	.....	56,931
Tonawanda.....	5,920	.....	.....	.....	.....	.....	5,939
Buffalo.....	.....	.....	.....	.....	.....	.....	.....
Waterford.....	12,961	.....	36,433	5,513	.....	.....	90,562
Whitehall.....	3,220	.....	.....	.....	.....	.....	3,353
Oswego.....	10,002	.....	.....	.....	.....	.....	10,002
Waterloo.....	.....	.....	.....	.....	.....	.....	.....
Boonville.....	.....	.....	.....	.....	.....	.....	.....
Total.....	298,728	10,223	108,591	40,485	2,654	3,274	570,834

ANNUAL STATEMENT showing the total quantity (in tons of 2,000 lbs.) of way freight going east and west during the season of 1911.

OFFICES.	THE FOREST — PRODUCT OF WOOD.					AGRICULTURE — VEGETABLE FOOD.		
	Boards and scapting.	Timber.	Wood.	Pulp wood.	Wood pulp.	Ashes, pot and pearl.	Wheat.	Rye.
Albany.....	5,260	.....	.....	.....	.....	.....	.....	.....
West Troy.....	6,731	933	316	.....	.....	662	.....	.....
Rome.....	1,860	.....	1,720	.....	.....	.....	.....	.....
Syracuse.....	2,548	.....	406	.....	.....	15,041	549	.....
Rochester.....	.....	32	.....	.....	.....	.....	120	.....
Tonawanda.....	69,708	.....	.....	.....	.....	.....	.....	.....
Buffalo.....	109,685	.....	.....	.....	.....	.....	40,878	.....
Waterford.....	27,523	1,460	5,754	.....	24,019	.....	.....	1,576
Whitehall.....	1,033	11,160	25,584	148,658	25,271	.....	.....	.....
Oswego.....	.....	.....	.....	20,855	.....	.....	.....	.....
Waterloo.....	.....	.....	.....	.....	.....	.....	.....	.....
Boonville.....	100	.....	.....	.....	.....	.....	.....	.....
Total.....	224,448	13,585	33,780	169,513	49,290	15,703	41,547	1,576

*Way freight (in tons) going east and west, etc.—(Continued).*

OFFICES.	AGRICULTURE — VEGETABLE FOOD.							
	Corn.	Barley.	Barley malt.	Oats.	Bran and ship stuffs.	Pean and beans.	Apples.	Potatoes.
Albany.....	.....	.....	.....	.....	.....	.....	.....	.....
West Troy.....	.....	1,419	.....	.....	.....	4	.....	.....
Rome.....	56	.....	.....	48	.....	.....	.....	240
Syracuse.....	.....	3,721	2,397	.....	.....	.....	128	75
Rochester.....	7,874	.....	.....	.....	.....	.....	.....	.....
Tonawanda.....	.....	.....	.....	.....	.....	.....	.....	.....
Buffalo.....	36,761	5,695	.....	22,199	.....	.....	.....	.....
Waterford.....	.....	.....	.....	.....	.....	.....	14	1,217
Whitehall.....	.....	.....	.....	.....	.....	.....	.....	.....
Oswego.....	.....	.....	.....	.....	.....	.....	.....	.....
Waterloo.....	.....	.....	.....	.....	.....	.....	.....	.....
Boonville.....	.....	.....	.....	.....	3	.....	.....	243
Total.....	44,691	10,835	2,397	22,247	3	4	142	1,775

*Way freight (in tons) going east and west, etc.—(Continued).*

OFFICES.	Agriculture— Vegetable food— Dried fruit.	All other agricultural products— Hay.	MANUFACTURES.				
			Domestic spirits.	Furniture.	Pig iron.	Castings and iron ware.	Domestic salt.
Albany.....	.....	.....	.....	.....	.....	.....	.....
West Troy.....	12	4,438	2	.....	.....	.....	.....
Rome.....	.....	.....	.....	.....	.....	.....	.....
Syracuse.....	.....	34	.....	7	.....	.....	69,918
Rochester.....	.....	.....	.....	.....	474	.....	17,790
Tonawanda.....	.....	.....	.....	.....	463	.....	.....
Buffalo.....	.....	.....	.....	.....	941	.....	.....
Waterford.....	.....	1,481	.....	.....	.....	.....	.....
Whitehall.....	.....	.....	.....	.....	.....	.....	.....
Oswego.....	.....	.....	.....	.....	.....	.....	.....
Watertown.....	35	.....	.....	.....	.....	.....	16,484
Boonville.....	.....	.....	.....	.....	.....	285	.....
Total.....	47	5,953	2	7	1,878	285	104,192

*Way freight (in tons) going east and west, etc.—(Continued).*

OFFICERS.	MERCHANDISE.				
	Sugar.	Molasses.	Coffee.	Iron and steel.	All other merchandise.
Albany.....	.....	.....	.....	.....	.....
West Troy.....	6,363	69	79	168	6,337
Rome.....	.....	.....	.....	.....	25,845
Syracuse.....	80	.....	.....	80	34,088
Rochester.....	.....	.....	.....	.....	11,196
Tonawanda.....	.....	.....	.....	.....	394
Buffalo.....	.....	.....	.....	.....	8,505
Waterford.....	.....	.....	.....	.....	11,389
Whitehall.....	.....	.....	.....	.....	5
Oswego.....	.....	.....	.....	.....	55
Waterloo.....	.....	.....	.....	.....	1,573
Boonville.....	.....	.....	.....	.....	.....
Total.....	6,443	69	79	248	99,387

*Way freight (in tons) going east and west, etc.—(Concluded).*

OFFICES.	OTHER ARTICLES.							Total tons.
	Ice.	Stone, lime and clay.	Rock and superphosphate.	Anthracite coal.	Bituminous coal.	Iron ore.	Sundries.	
Albany.....	.....	11	.....	336	.....	.....	.....	5,607
West Troy.....	61,040	76,409	10,223	42,723	813	2,654	1,927	223,322
Rome.....	.....	198,069	.....	35,762	48,434	.....	.....	312,034
Syracuse.....	15,112	68,027	.....	58,354	54,213	.....	18,879	343,657
Rochester.....	.....	148,184	.....	12,206	24,377	.....	.....	222,253
Tonawanda.....	.....	89,940	.....	.....	4,072	.....	115	164,692
Buffalo.....	.....	286,575	.....	.....	.....	.....	674	511,913
Waterford.....	6,290	35,165	.....	36,433	5,513	.....	2,895	160,729
Whitehall.....	.....	108,640	.....	.....	.....	.....	13	320,364
Oswego.....	.....	16,132	.....	.....	.....	.....	.....	37,042
Waterloo.....	.....	9,505	.....	2,581	28,371	.....	.....	58,549
Boonville.....	.....	66,716	.....	.....	.....	.....	.....	67,347
Total.....	82,442	1,103,373	10,223	188,395	165,793	2,654	24,503	2,427,509

ANNUAL STATEMENT showing the total quantity (in tons of 2,000 lbs.) of through freight going east during the season of 1911.

OFFICES.	The forest— Product of wood— Boards and scantling.	AGRICULTURE — VEGETABLE FOOD.						
		Wheat.	Rye.	Corn.	Barley.	Barley malt.	Oats.	Apples.
Tonawanda.....	50,202	.....	.....	.....	.....	.....	.....	.....
Buffalo.....	.....	102,228	941	26,313	1,678	12,189	39,969	.....
Whitehall.....	93,978	.....	.....	.....	.....	.....	.....	197
Total.....	144,180	102,228	941	26,313	1,678	12,189	39,969	197



*Through freight (in tons) going east, etc.— (Concluded).*

OFFICES.	All other agricultural products— Hay.	Manu- factures— Pig iron.	All other merchandise.	OTHER ARTICLES.		Total tons.
				Iron ore.	Sundries.	
Tonawanda.....	.....	13,142	.....	.....	.....	63,344
Buffalo.....	.....	16,114	58	.....	.....	199,490
Whitehall.....	29,573	336	178	9,903	991	135,156
Total.....	29,573	29,592	236	9,903	991	397,990

*ANNUAL STATEMENT showing the total quantity (in tons of 2,000 lbs.) of through freight going west during the season of 1911.*

OFFICES.	THE FOREST — PRODUCT OF WOOD.				AGRICULTURE — PRODUCT OF ANIMALS.		AGRICULTURE — VEGETABLE FOOD.	
	Boards and scantling .	Timber.	Wood pulp.	Ashes, pot and pearl.	Lard tallow and lard oil.	Hides.	Flour.	Barley.
West Troy.....	401	.....	3,211	784	37	15	29	7,544
Waterford.....	1,565	40	.....	.....	.....	.....	.....	.....
Total.....	1,966	40	3,211	784	37	15	29	7,544

*Through freight (in tons) going west, etc.— (Continued).*

OFFICES.	AGRICULTURE — VEGETABLE FOOD.			ALL OTHER AGRICULTURAL PRODUCTS.			MANUFACTURES.		
	Peas and beans.	Dried fruit.	Hemp.	✓ Clover and grass seed.	Flax seed.	Domestic spirits.	Castings and iron ware.	Domestic woolens.	
West Troy.....	288	115	2,137	777	54	414	224	81	
Waterford.....	.....	.....	.....	.....	.....	.....	.....	.....	
Total.....	288	115	2,137	777	54	414	224	81	

*Through freight (in tons) going west, etc.—(Continued).*

OFFICES.	MANUFACTURES.		MERCHANDISE.					
	Domestic cottons.	Foreign salt.	Sugar.	Molasses.	Coffee.	Iron and steel.	Flint, enamel, crockery and glassware.	All other merchandise
West Troy.....	45	.....	3,572	263	1,128	76	66	49,134
Waterford.....	.....	743	.....	.....	.....	.....	.....	5,718
Total.....	45	743	3,572	263	1,128	76	66	54,852

*Through freight (in tons) going west, etc.— (Concluded).*

OFFICES.	OTHER ARTICLES.					Total tons.
	Stone, lime and clay.	Rock and super- phosphate.	Anthracite coal.	Bituminous coal.	Sundries.	
West Troy.....	38,968	1,493	.....	.....	6,294	117,150
Waterford.....	28,164	1,170	104,527	12,492	.....	154,419
Total.....	67,132	2,663	104,527	12,492	6,294	271,569

ANNUAL STATEMENT showing the total quantity (in tons of 2,000 lbs.) of through freight going east and west during the season of 1911.

OFFICES.	THE FOREST — PRODUCT OF WOOD.				AGRICULTURE — PRODUCT OF ANIMALS.			AGRICULTURE — VEGETABLE FOOD.	
	Boards and scantling.	Timber.	Wood pulp.	Ashes, pot and pearl.	Lard, tallow and lard oil.	Hides.	Flour.	Wheat.	
West Troy.....	401	.....	3,211	784	37	15	29	.....	
Tonawanda.....	50,202	.....	.....	.....	.....	.....	.....	102,228	
Buffalo.....	.....	.....	.....	.....	.....	.....	.....	.....	
Waterford.....	1,565	40	.....	.....	.....	.....	.....	.....	
Whitehall.....	93,978	.....	.....	.....	.....	.....	.....	.....	
Total.....	146,146	40	3,211	784	37	15	29	102,228	

*Through freight (in tons) going east and west, etc.—(Continued).*

OFFICES.	AGRICULTURE — VEGETABLE FOOD.							
	Rye.	Corn.	Barley.	Barley malt.	Oats.	Peas and beans.	Apples.	Dried fruit.
West Troy.....	.....	.....	7,544	.....	.....	288	.....	115
Tonawanda.....	.....	.....	.....	.....	.....	.....	.....	.....
Buffalo.....	941	26,313	1,678	12,189	39,969	.....	.....	.....
Waterford.....	.....	.....	.....	.....	.....	.....	.....	.....
Whitehall.....	.....	.....	.....	.....	.....	.....	197	.....
Total.....	941	26,313	9,222	12,189	39,969	288	197	115

*Through freight (in tons) going east and west, etc.—(Continued).*

OFFICES.	ALL OTHER AGRICULTURAL PRODUCTS.					MANUFACTURES.			
	Hemp.	Clover and grass seed.	Flaxseed.	Hay.	Domestic spirits.	Pig iron.	Castings and iron ware.	Domestic woollens.	
West Troy.....	2,137	777	54	.....	414	.....	224	81	
Tonawanda.....	.....	.....	.....	.....	.....	13,142	.....	.....	
Buffalo.....	.....	.....	.....	.....	.....	16,114	.....	.....	
Waterford.....	.....	.....	.....	.....	.....	.....	.....	.....	
Whitehall.....	.....	.....	.....	29,573	.....	336	.....	.....	
Total.....	2,137	777	54	29,573	414	29,592	224	81	



*Through freight (in tons) going east and west, etc.—(Continued).*

OFFICES.	MANUFACTURES.		MERCHANDISE.					
	Domestic cottons.	Foreign salt.	Sugar.	Molasses.	Coffee.	Iron and steel.	Flint, enamel, crockery and glassware.	All other merchandise.
West Troy.....	45	.....	3,572	263	1,128	76	66	49,134
Tonawanda.....	.....	.....	.....	.....	.....	.....	.....	.....
Buffalo.....	.....	.....	.....	.....	.....	.....	.....	58
Waterford.....	.....	743	.....	.....	.....	.....	.....	5,718
Whitehall.....	.....	.....	.....	.....	.....	.....	.....	178
Total.....	45	743	3,572	263	1,128	76	66	55,088

*Through freight (in tons) going east and west, etc.—(Concluded).*

OFFICES.	OTHER ARTICLES.						Total tons.
	Stone, lime and clay.	Rock and super-phosphate.	Anthracite coal.	Bituminous coal.	Iron ore.	Sundries.	
West Troy.....	38,968	1,493	.....	.....	.....	6,294	117,150
Tonawanda.....	.....	.....	.....	.....	.....	.....	63,344
Buffalo.....	.....	.....	.....	.....	.....	.....	199,490
Waterford.....	28,164	1,170	104,527	12,492	.....	.....	154,419
Whitehall.....	.....	.....	.....	.....	9,903	991	135,156
Total.....	67,132	2,663	104,527	12,492	9,903	7,285	669,559

*Total tons carried on the canals during the season of 1911.*

OFFICES.	THE FOREST — PRODUCT OF WOOD.					AGRICULTURE — PRODUCT OF ANIMALS.		
	Boards and scantling.	Timber.	Wood.	Pulp wood.	Wood pulp.	Ashes, pot tallow and pearl.	Lard tallow and lard oil.	Hides.
Albany.....	5,260	.....	.....	.....	.....	.....	.....	.....
West Troy.....	7,132	933	316	.....	3,211	1,446	37	15
Rome.....	1,860	.....	1,720	.....	.....	.....	.....	.....
Syracuse.....	2,548	.....	406	.....	.....	15,041	.....	.....
Rochester.....	.....	32	.....	.....	.....	.....	.....	.....
Tonawanda.....	119,910	.....	.....	.....	.....	.....	.....	.....
Buffalo.....	109,685	.....	.....	.....	.....	.....	.....	.....
Waterford.....	29,088	1,500	5,754	.....	24,019	.....	.....	.....
Whitehall.....	95,011	11,160	25,584	148,658	25,271	.....	.....	.....
Oswego.....	.....	.....	.....	20,855	.....	.....	.....	.....
Watertloo.....	.....	.....	.....	.....	.....	.....	.....	.....
Boonville.....	100	.....	.....	.....	.....	.....	.....	.....
Total.....	370,594	13,625	33,780	169,513	52,501	16,487	37	15

*Total tons carried on the canals, etc.—(Continued).*

OFFICES.	AGRICULTURE — VEGETABLE FOOD.							
	Flour.	Wheat.	Rye.	Corn.	Barley.	Barley malt.	Oats.	Bran and ship stuffs.
Albany.....	.....	.....	.....	.....	.....	.....	.....	.....
West Troy.....	29	.....	.....	.....	8,963	.....	.....	.....
Rome.....	.....	.....	.....	56	.....	.....	48	.....
Syracuse.....	.....	549	.....	.....	3,721	2,397	.....	.....
Rochester.....	.....	120	.....	7,874	.....	.....	.....	.....
Tonawanda.....	.....	.....	.....	.....	.....	.....	.....	.....
Buffalo.....	.....	143,106	941	63,074	7,373	12,189	62,168	.....
Waterford.....	.....	.....	1,576	.....	.....	.....	.....	.....
Whitehall.....	.....	.....	.....	.....	.....	.....	.....	.....
Oswego.....	.....	.....	.....	.....	.....	.....	.....	.....
Waterloo.....	.....	.....	.....	.....	.....	.....	.....	.....
Boonville.....	.....	.....	.....	.....	.....	.....	.....	3
Total.....	29	143,775	2,517	71,004	20,057	14,586	62,216	3

*Total tons carried on the canals, etc.—(Continued).*

OFFICES.	AGRICULTURE—VEGETABLE FOOD.					ALL OTHER AGRICULTURAL PRODUCTS.			
	Peas and beans.	Apples.	Potatoes.	Dried fruit.	Hemp.	Clover and grass seed.	Flaxseed.	Hay.	
Albany.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
West Troy.....	292	.....	.....	127	2,137	777	54	4,438	.....
Rome.....	.....	.....	240	.....	.....	.....	.....	.....	.....
Syracuse.....	.....	128	75	.....	.....	.....	.....	34	.....
Rochester.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tonawanda.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Buffalo.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Waterford.....	.....	14	1,217	.....	.....	.....	.....	1,481	.....
Whitehall.....	.....	197	.....	.....	.....	.....	.....	29,573	.....
Oswego.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Waterloo.....	.....	.....	.....	35	.....	.....	.....	.....	.....
Boonville.....	.....	.....	243	.....	.....	.....	.....	.....	.....
Total.....	292	339	1,775	162	2,137	777	54	35,526	.....

*Total tons carried on the canals, etc.—(Continued).*

OFFICES.	MANUFACTURES.							
	Domestic spirits.	Furniture.	Pig Iron.	Castings and iron ware.	Domestic woollens.	Domestic cottons.	Domestic salt.	Foreign salt.
Albany.....	.....	.....	.....	.....	.....	.....	.....	.....
West Troy.....	416	.....	.....	224	81	45	.....	.....
Rome.....	.....	.....	.....	.....	.....	.....	.....	.....
Syracuse.....	.....	7	.....	.....	.....	.....	69,918	.....
Rochester.....	.....	.....	474	.....	.....	.....	17,790	.....
Tonawanda.....	.....	.....	13,605	.....	.....	.....	.....	.....
Buffalo.....	.....	.....	17,055	.....	.....	.....	.....	.....
Waterford.....	.....	.....	.....	.....	.....	.....	.....	743
Whitehall.....	.....	.....	336	.....	.....	.....	.....	.....
Oswego.....	.....	.....	.....	.....	.....	.....	.....	.....
Waterloo.....	.....	.....	.....	.....	.....	.....	16,484	.....
Boonville.....	.....	.....	.....	285	.....	.....	.....	.....
Total.....	416	7	31,470	509	81	45	104,192	743



Total tons carried on the canals, etc.—(Concluded).

OFFICES.	OTHER ARTICLES.							Total tons.
	Ice.	Stone, lime and clay.	Rock and super-phosphate.	Anthracite coal.	Bituminous coal.	Iron ore.	Sundries.	
Albany.....	.....	11	.....	336	.....	.....	.....	5,607
West Troy.....	61,040	115,377	11,716	42,723	813	2,654	8,221	340,472
Rome.....	.....	198,069	.....	35,762	48,434	.....	.....	312,034
Syracuse.....	15,112	68,027	.....	58,354	54,213	.....	18,879	343,657
Rochester.....	.....	148,184	.....	12,206	24,377	.....	.....	222,253
Tonawanda.....	.....	89,940	.....	.....	4,072	.....	115	228,036
Buffalo.....	.....	286,575	.....	.....	.....	.....	674	711,403
Waterford.....	6,290	63,329	1,170	140,960	18,005	.....	2,895	315,148
Whitehall.....	.....	108,640	.....	.....	.....	9,903	1,004	455,520
Oswego.....	.....	16,132	.....	.....	.....	.....	.....	37,042
Waterloo.....	.....	9,505	.....	2,581	28,371	.....	.....	58,549
Boonville.....	.....	66,716	.....	.....	.....	.....	.....	67,347
Total.....	82,442	1,170,505	12,886	292,922	178,285	12,557	31,788	3,097,068



*Value of all property carried on the canals during the season of 1911.*

OFFICES.	THE FOREST — PRODUCT OF WOOD.					AGRICULTURE — PRODUCT OF ANIMALS.		
	Boards and scantling.	Timber.	Wood.	Pulp wood.	Wood pulp.	Ashes, pot and pearl.	Lard tallow and lard oil.	Hides.
Albany.....	\$94,682	.....	.....	.....	.....	.....	.....	.....
West Troy.....	128,373	\$11,656	\$452	.....	\$64,227	\$52,580	\$5,888	\$4,074
Rome.....	33,486	.....	2,456	.....	.....	.....	.....	.....
Syracuse.....	45,864	.....	580	.....	.....	546,970	.....	.....
Rochester.....	.....	400	.....	.....	.....	.....	.....	.....
Tonawanda.....	2,158,394	.....	.....	.....	.....	.....	.....	.....
Buffalo.....	1,974,330	.....	.....	.....	.....	.....	.....	.....
Waterford.....	523,590	18,750	8,220	.....	480,370	.....	.....	.....
Whitehall.....	1,710,195	139,500	36,548	\$817,617	505,426	.....	.....	.....
Oswego.....	.....	.....	.....	114,703	.....	.....	.....	.....
Watertown.....	.....	.....	.....	.....	.....	.....	.....	.....
Boonville.....	1,800	.....	.....	.....	.....	.....	.....	.....
Total.....	\$6,670,714	\$170,306	\$48,256	\$932,320	\$1,050,023	\$599,550	\$5,888	\$4,074

*Value of all property carried on the canals, etc.—(Continued).*

OFFICES.	AGRICULTURE—VEGETABLE FOOD.							
	Flour.	Wheat.	Rye.	Corn.	Barley.	Barley malt.	Oats.	Bran and ship stuffs.
Albany.....	.....	.....	.....	.....	.....	.....	.....	.....
West Troy.....	\$1,614	.....	.....	.....	\$448,168	.....	.....	.....
Rome.....	.....	.....	.....	\$1,600	.....	.....	\$1,500	.....
Syracuse.....	.....	\$19,215	.....	.....	186,055	\$183,300	.....	.....
Rochester.....	.....	4,200	.....	224,950	.....	.....	.....	.....
Tonawanda.....	.....	.....	.....	.....	.....	.....	.....	.....
Buffalo.....	.....	5,008,693	\$31,920	1,802,118	368,642	932,100	1,942,762	.....
Waterford.....	.....	.....	53,485	.....	.....	.....	.....	.....
Whitehall.....	.....	.....	.....	.....	.....	.....	.....	.....
Oswego.....	.....	.....	.....	.....	.....	.....	.....	.....
Waterloo.....	.....	.....	.....	.....	.....	.....	.....	.....
Boonville.....	.....	.....	.....	.....	.....	.....	.....	\$83
Total.....	\$1,614	\$5,032,108	\$85,405	\$2,028,668	\$1,002,865	\$1,115,400	\$1,944,262	\$83

*Value of all property carried on the canals, etc.—(Continued).*

OFFICES.	AGRICULTURE — VEGETABLE FOOD.				ALL OTHER AGRICULTURAL PRODUCTS.			
	Peas and beans.	Apples.	Potatoes.	Dried fruit.	Hemp.	Clover and grass seed.	Flax seed.	Hay.
Albany.....	.....	.....	.....	.....	.....	.....	.....	.....
West Troy.....	\$24,320	.....	.....	\$25,360	\$341,976	\$310,840	\$2,160	\$110,815
Rome.....	.....	.....	\$6,000	.....	.....	.....	.....	.....
Syracuse.....	.....	\$4,050	1,125	.....	.....	.....	.....	850
Rochester.....	.....	.....	.....	.....	.....	.....	.....	.....
Tonawanda.....	.....	.....	.....	.....	.....	.....	.....	.....
Buffalo.....	.....	.....	.....	.....	.....	.....	.....	.....
Waterford.....	.....	450	30,428	.....	.....	.....	.....	37,013
Whitehall.....	.....	6,239	.....	.....	.....	.....	.....	739,334
Oswego.....	.....	.....	.....	.....	.....	.....	.....	.....
Waterloo.....	.....	.....	.....	7,000	.....	.....	.....	.....
Boonville.....	.....	.....	6,075	.....	.....	.....	.....	.....
Total.....	\$24,320	\$10,739	\$43,628	\$32,360	\$341,976	\$310,840	\$2,160	\$888,012

*Value of all property carried on the canals, etc.—(Continued).*

OFFICES.	MANUFACTURES.							
	Domestic spirits.	Furniture.	Pig Iron.	Castings and iron ware.	Domestic woollens.	Domestic cottons.	Domestic salt.	Foreign salt.
Albany.....	.....	.....	.....	.....	.....	.....	.....	.....
West Troy.....	\$129,814	.....	.....	\$13,440	\$96,780	\$27,000	.....	.....
Rome.....	.....	.....	.....	.....	.....	.....	.....	.....
Syracuse.....	.....	\$1,400	.....	.....	.....	.....	\$699,187	.....
Rochester.....	.....	.....	\$7,103	.....	.....	.....	177,900	.....
Tonawanda.....	.....	.....	204,071	.....	.....	.....	.....	.....
Buffalo.....	.....	.....	255,828	.....	.....	.....	.....	.....
Waterford.....	.....	.....	.....	.....	.....	.....	.....	\$7,430
Whitehall.....	.....	.....	5,040	.....	.....	.....	.....	.....
Oswego.....	.....	.....	.....	.....	.....	.....	.....	.....
Waterloo.....	.....	.....	.....	.....	.....	.....	164,845	.....
Boonville.....	.....	.....	.....	17,100	.....	.....	.....	.....
Total.....	\$129,814	\$1,400	\$472,042	\$30,540	\$96,780	\$27,000	\$1,041,932	\$7,430



*Value of all property carried on the canals etc.—(Concluded).*

OFFICES.	OTHER ARTICLES.							Total value.
	Ice.	Stone, lime and clay.	Rock and super-phosphate.	Anthracite coal.	Bituminous coal.	Iron ore.	Sundries.	
Albany.....		\$28		\$1,680				\$96,390
West Troy.....	\$152,600	288,444	\$234,325	23,594	\$2,033	\$13,269	\$822,200	10,467,002
Rome.....		495,170		178,815	121,082			3,424,678
Syracuse.....	37,779	170,065		291,773	135,534		1,887,822	7,632,347
Rochester.....		370,465		61,028	60,944			2,026,590
Tonawanda.....		224,850			10,180			2,648,345
Buffalo.....		745,095					11,500	13,985,237
Waterford.....	15,725	158,322	23,390	704,799	45,011		289,500	4,107,183
Whitehall.....		271,601				49,515	100,348	4,399,637
Oswego.....		40,329						161,632
Watloo.....		23,763		12,905	70,927			436,740
Boonville.....		166,790						191,848
Total.....	\$206,104	\$2,954,922	\$257,715	\$1,274,594	\$445,711	\$62,784	\$3,178,794	\$49,577,629

*Property (in tons of 2,000 lbs.) left at and between offices of the canals during the season of 1911.*

OFFICES.	THE FOREST — PRODUCT OF WOOD.					
	Boards and scantling.	Timber.	Wood.	Pulp wood.	Wood pulp.	Ashes, pot and pearl.
Albany.....	36,813	.....	.....	.....	.....	.....
West Troy.....	23,053	933	316	.....	.....	13,548
Rome.....	3,070	.....	1,314	.....	.....	.....
Syracuse.....	8,411	.....	952	.....	.....	.....
Rochester.....	9,798	1,635	.....	.....	84	.....
Tonawanda.....	56,949	253	.....	.....	2,774	1,215
Buffalo.....	109,573	.....	.....	.....	24,019	.....
Waterford.....	120,950	1,460	5,754	.....	148,658	.....
Whitehall.....	2,002	11,200	25,584	20,855	25,439	.....
Oswego.....	.....	.....	.....	.....	.....	.....
Watertown.....	.....	.....	.....	.....	.....	.....
Boonville.....	.....	.....	.....	.....	.....	.....
Total.....	370,619	15,481	33,920	169,513	52,316	14,763

*Property (in tons of 2,000 lbs.) left at and between offices on the canals, etc.— (Continued).*

OFFICES.	AGRICULTURE — VEGETABLE FOOD.							
	Wheat.	Rye.	Corn.	Barley.	Barley malt.	Oats.	Bran and ship stuffs.	Peas and beans.
Albany.....								
West Troy.....	104,531	941	26,781	1,858	15,242	39,850		
Rome.....			1,954			2,126		
Syracuse.....	369			9,484				
Rochester.....	26,118		7,173	335				
Tonawanda.....								
Buffalo.....	7,740		31,164	6,526		18,192		1,060
Waterford.....		1,576						
Whitehall.....								
Oswego.....								
Waterloo.....								
Boonville.....							3	
Total.....	138,758	2,517	67,072	18,203	15,242	60,168	3	1,060



*Property (in tons of 2,000 lbs.) left at and between offices on the canals, etc.— (Continued).*

OFFICES.	AGRICULTURE — VEGETABLE FOOD.			ALL OTHER AGRICULTURAL PRODUCTS.			
	Apples.	Potatoes.	Dried fruit.	Hemp.	Clover and grass seed.	Flax seed.	Hay.
Albany.....	320	810	.....	.....	.....	.....	4,433
West Troy.....	.....	243	.....	.....	.....	.....	34
Rome.....	.....	.....	.....	.....	.....	.....	.....
Syracuse.....	.....	.....	.....	.....	.....	.....	.....
Rochester.....	.....	.....	.....	.....	.....	.....	.....
Tonawanda.....	.....	.....	.....	.....	.....	.....	.....
Buffalo.....	.....	.....	34	1,035	643	54	.....
Waterford.....	211	1,217	.....	.....	.....	.....	31,014
Whitehall.....	.....	.....	.....	.....	.....	.....	.....
Oswego.....	.....	.....	.....	.....	.....	.....	.....
Waterloo.....	.....	.....	.....	.....	.....	.....	.....
Boonville.....	.....	.....	.....	.....	.....	.....	.....
Total.....	531	2,270	34	1,035	643	54	35,481

*Property (in tons of 2,000 lbs.) left at and between offices on the canals, etc.— (Continued).*

OFFICES.	MANUFACTURES.						
	Domestic spirits.	Furniture.	Pig iron.	Castings and iron ware.	Domestic woodens.	Domestic salt.	Foreign salt.
Albany.....	.....	.....	.....	.....	.....	.....	.....
West Troy.....	.....	.....	30,259	172	.....	69,097	.....
Rome.....	.....	.....	.....	.....	.....	.....	.....
Syracuse.....	.....	5	459	.....	.....	33,052	.....
Rochester.....	.....	.....	.....	.....	.....	.....	.....
Tonawanda.....	.....	.....	.....	.....	.....	.....	.....
Buffalo.....	52	.....	.....	.....	80	.....	.....
Waterford.....	.....	.....	336	.....	.....	.....	743
Whitehall.....	.....	.....	.....	.....	.....	.....	.....
Oswego.....	.....	.....	.....	.....	.....	.....	.....
Waterloo.....	.....	.....	.....	285	.....	.....	.....
Boonville.....	.....	.....	.....	.....	.....	.....	.....
Total.....	52	5	31,054	457	80	102,149	743

*Property (in tons of 2,000 lbs.) left at and between offices on the canals, etc.— (Continued).*

OFFICES.	MERCHANDISE.					OTHER ARTICLES.	
	Sugar.	Molasses.	Coffee.	Iron and steel.	All other merchandise.	Ice.	Stone, lime and clay.
Albany.....	.....	.....	.....	.....	.....	.....	11
West Troy.....	2,229	33	4	168	2,162	61,040	36,288
Rome.....	346	.....	.....	.....	26,486	.....	217,252
Syracuse.....	1,917	.....	.....	60	33,352	15,112	116,713
Rochester.....	1,571	.....	.....	.....	12,637	.....	149,093
Tonawanda.....	.....	.....	.....	.....	.....	.....	81,980
Buffalo.....	3,311	259	879	71	53,744	.....	327,710
Waterford.....	.....	.....	.....	.....	11,738	6,290	35,165
Whitehall.....	.....	.....	.....	.....	5,197	.....	138,495
Oswego.....	.....	.....	.....	.....	55	.....	16,132
Waterloo.....	.....	.....	.....	.....	.....	.....	9,505
Boonville.....	.....	.....	.....	.....	4	.....	21,970
Total.....	9,374	292	883	299	145,375	82,442	1,150,314

*Property (in tons of 2,000 lbs.) left at and between offices on the canals, etc.—(Concluded).*

OFFICES.	OTHER ARTICLES.					Total tons.
	Rock and super-phosphate.	Anthracite coal.	Bituminous coal.	Iron ore.	Sundries.	
Albany.....	.....	.....	.....	.....	.....	36,824
West Troy.....	1,175	42,723	813	.....	11,828	490,607
Rome.....	.....	35,811	65,966	2,317	.....	356,885
Syracuse.....	831	33,053	53,404	.....	13,888	321,096
Rochester.....	9,418	12,205	7,970	.....	507	238,460
Tonawanda.....	.....	.....	4,072	.....	205	143,543
Buffalo.....	1,910	.....	.....	.....	11,620	579,646
Waterford.....	.....	36,433	5,513	10,059	3,768	295,503
Whitehall.....	.....	102,823	13,533	.....	13	473,687
Oswego.....	.....	.....	.....	.....	.....	37,042
Waterloo.....	.....	1,515	13,211	.....	.....	24,231
Boonville.....	.....	.....	.....	.....	.....	22,262
Total.....	13,334	264,563	164,482	12,376	41,829	3,019,786

*Property (in tons of 2,000 lbs.) arriving at tide water from the Erie Canal during the season of 1911.*

OFFICES.	THE FOREST — PRODUCT OF WOOD.			AGRICULTURE — VEGETABLE FOOD.				
	Boards and scantling.	Timber.	Ashes, pot and pearl.	Wheat.	Rye.	Corn.	Barley.	Barley malt.
Albany.....	32,934	.....	.....	.....	.....	.....	.....	.....
West Troy.....	18,571	933	13,548	104,531	941	26,781	1,678	15,242
Total .....	51,505	933	13,548	104,531	941	26,781	1,678	15,242

*Property (in tons of 2,000 lbs.) arriving at tide-water from the Erie canal, etc.—(Continued).*

OFFICES.	AGRICULTURE—VEGETABLE FOOD.			All other agricultural products—Hay.	MANUFACTURES.		
	Oats.	Apples.	Potatoes.		Pig iron.	Castings and iron ware.	Domestic salt.
Albany.....	.....	.....	.....	.....	.....	.....	.....
West Troy.....	39,850	320	810	4,433	30,259	172	69,097
Total.....	39,850	320	810	4,433	30,259	172	69,097

*Property (in tons of 2,000 lbs.) arriving at tide-water from the Erie canal, etc.—(Concluded).*

OFFICES.	All other merchandise.	OTHER ARTICLES.					Total tons.
		Ice.	Stone, lime and clay.	Anthracite coal.	Bituminous coal.	Sundries.	
Albany.....	.....	11	.....	.....	.....	.....	32,945
West Troy.....	68	61,040	19,788	496	25	11,787	420,370
Total.....	68	61,040	19,799	496	25	11,787	453,315

*Property (in tons of 2,000 lbs.) arriving at tide-water from the Champlain canal during the season of 1911.*

OFFICES.	THE FOREST — PRODUCT OF WOOD.		AGRICULTURE — VEGETABLE FOOD.			All other agricultural products — Hay.	Manufactures — Pig iron.
	Boards and scantling.	Wood.	Rye.	Apples.	Potatoes.		
Waterford.....	119,909	5,754	140	211	1,217	31,014	336
Total.....	119,909	5,754	140	211	1,217	31,014	336



*Property (in tons of 2,000 lbs.) arriving at tide-water from the Champlain canal, etc.—(Concluded).*

OFFICES.	All other merchandise.	OTHER ARTICLES.				Total tons.
		Ice.	Stone, lime and clay.	Iron ore.	Sundries.	
Waterford.....	4,039	6,290	22,204	10,059	3,768	204,941
Total.....	4,039	6,290	22,204	10,059	3,768	204,941

*Property (in tons of 2,000 lbs.) arriving at tide water from all canals during the season of 1911.*

OFFICES.	THE FOREST — PRODUCT OF WOOD.				AGRICULTURE — VEGETABLE FOOD.			
	Boards and scantling.	Timber.	Wood.	Ashes, pot and pearl.	Wheat.	Rye.	Corn.	Barley.
Albany.....	32,934	.....	.....	.....	.....	.....	.....	.....
West Troy.....	18,571	933	.....	13,548	104,531	941	26,781	1,678
Waterford.....	119,909	.....	5,754	.....	.....	140	.....	.....
Total.....	171,414	933	5,754	13,548	104,531	1,081	26,781	1,678

*Property (in tons of 2,000 lbs.) arriving at tide-water from all canals, etc.—(Continued).*

OFFICES	AGRICULTURE — VEGETABLE FOOD.				All other agricultural products — Hay.	MANUFACTURES.		
	Barley malt.	Oats	Apples.	Potatoes.		Pig iron.	Castings and iron ware.	Domestic salt.
Albany.....	.....	.....	.....	.....	.....	.....	.....	.....
West Troy.....	15,242	39,850	320	810	4,433	30,259	172	69,097
Waterford.....	.....	.....	211	1,217	31,014	336	.....	.....
Total.....	15,242	39,850	531	2,027	35,447	30,595	172	69,097

*Property (in tons of 2,000 lbs.) arriving at tide water from all canals, etc.—(Concluded).*

OFFICES.	OTHER ARTICLES.						Total tons.
	All other merchandise.	Ice.	Stone, lime and clay.	Anthracite coal.	Bituminous coal.	Iron ore.	Sundries.
Albany.....	.....	.....	11	.....	.....	.....	.....
West Troy.....	68	61,040	19,788	496	25	.....	11,787
Waterford.....	4,039	6,290	22,204	.....	.....	10,059	3,768
Total.....	4,107	67,330	42,003	496	25	10,059	15,555
							32,945
							420,370
							204,941
							658,256

*Value of all property left at tide-water from the canals during the season of 1911.*

OFFICES.	THE FOREST—PRODUCT OF WOOD.				AGRICULTURE—VEGETABLE FOOD.			
	Boards and scantling.	Timber.	Wood.	Ashes, pot and pearl.	Wheat.	Rye.	Corn.	Barley.
Albany.....	\$592,825	.....	.....	.....	.....	.....	.....	.....
West Troy.....	334,278	\$11,656	.....	\$492,640	\$3,658,568	\$31,920	\$765,182	\$83,882
Waterford.....	2,158,359	.....	\$8,220	.....	.....	4,750	.....	.....
Total .....	\$3,085,462	\$11,656	\$8,220	\$492,640	\$3,658,568	\$36,670	\$765,182	\$83,882

*Value of all property left at tide-water from the canals, etc.—(Continued).*

OFFICES.	AGRICULTURE — VEGETABLE FOOD.				All other agricultural products— Hay.	MANUFACTURES.		
	Barley malt.	Oats.	Apples.	Potatoes.		Pig iron.	Castings and iron ware.	Domestic salt.
Albany.....	.....	.....	.....	.....	.....	.....	.....	.....
West Troy.....	\$1,165,580	\$1,245,314	\$10,125	\$20,250	\$110,815	\$453,874	\$10,320	\$690,968
Waterford.....	.....	.....	6,689	30,427	775,326	5,040	.....	.....
Total.....	\$1,165,580	\$1,245,314	\$16,814	\$50,677	\$886,141	\$458,914	\$10,320	\$690,968

*Value of all property left at tide-water from the canals, etc.—(Concluded).*

OFFICES.	OTHER ARTICLES.						Total value.
	All other merchandise.	Ice.	Stone, lime and clay.	Anthracite coal.	Bituminous coal.	Iron ore.	
Albany.....	.....	.....	\$28	.....	.....	.....	\$592,853
West Troy.....	\$6,825	\$152,600	\$49,472	\$2,480	\$63	\$1,178,725	10,475,537
Waterford.....	403,850	15,725	55,510	.....	.....	376,800	3,890,991
Total.....	\$410,675	\$168,325	\$105,010	\$2,480	\$63	\$50,295	\$14,959,381

*Property (in tons of 2,000 lbs.) that went to New York from the Erie canal during the season of 1911.*

OFFICES.	THE FOREST—PRODUCT OF WOOD.		AGRICULTURE—VEGETABLE FOOD.				
	Boards and scantling.	Ashes, pot and pearl.	Wheat.	Rye.	Corn.	Barley.	Barley malt.
Albany.....	2,046	.....	.....	.....	.....	.....	.....
West Troy.....	18,406	13,548	104,531	941	26,781	1,678	15,242
Total.....	20,452	13,548	104,531	941	26,781	1,678	15,242



*Property (in tons of 2,000 lbs.) that went to New York from the Erie canal, etc.—(Continued.)*

OFFICES.	AGRICULTURE — VEGETABLE FOOD.			All other agricultural products — Hay.	MANUFACTURES.		
	Oats.	Apples.	Potatoes.		Pig iron.	Castings and iron ware.	Domestic salt.
Albany.....	.....	.....	.....	.....	.....	.....	.....
West Troy.....	39,850	320	810	4,433	29,783	172	69,097
Total.....	39,850	320	810	4,433	29,783	172	69,097

*Property (in tons of 2,000 lbs.) that went to New York from the Erie canal, etc.— (Concluded).*

OFFICES.	All other merchandise.	OTHER ARTICLES.			Total tons.
		Ice.	Stone, lime and clay.	Sundries.	
Albany.....	.....	.....	11	.....	2,057
West Troy.....	68	61,040	10,537	11,776	409,013
Total.....	68	61,040	10,548	11,776	411,070

*Property (in tons of 2,000 lbs.) that went to New York from the Champlain canal during the season of 1911.*

OFFICES.	The forest— Product of wood— Boards and scantling.	AGRICULTURE — VEGETABLE FOOD.		All other agricultural products — Hay.	Manu- factures — Fig iron.	All other merchandise.
		Apples.	Potatoes.			
Waterford.....	93,427	211	1,217	31,014	336	4,039
Total.....	93,427	211	1,217	31,014	336	4,039

*Property (in tons of 2,000 lbs.) that went to New York from the Champlain canal, etc.—(Concluded).*

OFFICES.	OTHER ARTICLES.				Total tons.
	Ice.	Stone, lime and clay.	Iron ore.	Sundries.	
Waterford.....	6,290	2,500	10,059	3,768	152,861
Total.....	6,290	2,500	10,059	3,768	152,861

*Property (in tons of 2,000 lbs.) that went to New York from all canals during the season of 1911.*

OFFICES.	THE FOREST—PRODUCT OF WOOD.		AGRICULTURE — VEGETABLE FOOD.				
	Boards and scantling.	Ashes, pot and pearl.	Wheat.	Rye.	Corn.	Barley.	Barley malt.
Albany.....	2,046	.....	.....	.....	.....	.....	.....
West Troy.....	18,406	13,548	104,531	941	26,781	1,678	15,242
Waterford.....	93,427	.....	.....	.....	.....	.....	.....
Total.....	113,879	13,548	104,531	941	26,781	1,678	15,242

*Property (in tons of 2,000 lbs.) that went to New York from all canals, etc.—(Continued).*

OFFICES.	AGRICULTURE—VEGETABLE FOOD.			All other agricultural products— Hay.	MANUFACTURES.		
	Oats.	Apples.	Potatoes.		Pig iron.	Castings and iron ware.	Domestic salt.
Albany.....	.....	.....	.....	.....	.....	.....	.....
West Troy.....	39,850	320	810	4,433	29,783	172	69,097
Waterford.....	.....	211	1,217	31,014	336	.....	.....
Total.....	39,850	531	2,027	35,447	30,119	172	69,097

*Property (in tons of 2,000 lbs.) that went to New York from all canals, etc.—(Concluded).*

OFFICES.	All other merchandise.	OTHER ARTICLES.				Total tons.
		Ice.	Stone, lime and clay.	Iron ore.	Sundries.	
Albany.....	.....	.....	11	.....	.....	2,057
West Troy.....	68	61,040	10,537	.....	11,776	409,013
Waterford.....	4,039	6,290	2,500	10,059	3,768	152,861
Total.....	4,107	67,330	13,048	10,059	15,544	563,931

*Value of all the property that went to New York from the canals during the season of 1911.*

OFFICES.	THE FOREST—PRODUCT OF WOOD.		AGRICULTURE — VEGETABLE FOOD.				
	Boards and scantling.	Ashes, pot and pearl.	Wheat.	Rye.	Corn.	Barley.	Barley malt.
Albany.....	\$36,840	.....	.....	.....	.....	.....	.....
West Troy.....	331,308	\$492,640	\$3,658,568	\$31,920	\$765,182	\$83,882	\$1,165,580
Waterford.....	1,681,689	.....	.....	.....	.....	.....	.....
Total.....	\$2,049,837	\$492,640	\$3,658,568	\$31,920	\$765,182	\$83,882	\$1,165,580



*Value of all the property that went to New York from the canals, etc.—(Continued).*

OFFICES.	AGRICULTURE—VEGETABLE FOOD.				MANUFACTURES.		
	Oats.	Apples.	Potatoes.	All other agricultural products -- Hay.	Pig iron.	Castings and iron ware.	Domestic salt.
Albany.....	.....	.....	.....	.....	.....	.....	.....
West Troy.....	\$1,245,314	\$10,125	\$20,250	\$110,815	\$446,736	\$10,320	\$690,968
Waterford.....	.....	6,689	30,428	775,326	5,040	.....	.....
Total.....	\$1,245,314	\$16,814	\$50,678	\$886,141	\$451,776	\$10,320	\$690,968

*Value of all the property that went to New York from the canals, etc.—(Concluded).*

OFFICES.	All other merchandise.	OTHER ARTICLES.				Total value.
		Ice.	Stone, lime and clay.	Iron ore.	Sundries.	
Albany.....	.....	.....	\$28	.....	.....	\$36,868
West Troy.....	\$6,825	\$152,600	26,343	.....	\$1,177,585	10,426,961
Waterford.....	403,850	15,725	6,250	\$50,295	376,800	3,352,092
Total.....	\$410,675	\$168,325	\$32,621	\$50,295	\$1,554,385	\$13,815,921

STATEMENT showing the total quantity (in tons of 2,000 pounds) of property cleared at Buffalo during the season of 1911, and the value of the same.

ARTICLES.	Tons.	Value.
Boards and scantling.....	109,685	\$1,974,330
Wheat.....	143,106	5,008,693
Rye.....	941	31,920
Corn.....	63,074	1,802,118
Barley.....	7,373	368,642
Barley malt.....	12,189	932,100
Oats.....	62,168	1,942,762
Pig iron.....	17,055	255,828
All other merchandise.....	8,563	856,325
Stone, lime and clay.....	286,575	745,095
Sundries.....	674	67,424
Total tons and value.....	711,403	\$13,985,237

STATEMENT showing the total quantity (in tons of 2,000 pounds) of property left at Buffalo during the season of 1911, and the value of the same.

ARTICLES.	Tons.	Value.
Boards and scantling.....	109,573	\$1,972,320
Wood pulp.....	2,774	55,993
Wheat.....	7,740	270,900
Corn.....	31,164	890,400
Hemp.....	1,035	165,742
Clover and grass seed.....	643	257,203
Peas and beans.....	1,060	88,295
Barley.....	6,526	326,348
Ashes, pot and pearl.....	1,215	44,180
Sugar.....	3,311	397,433
Molasses.....	259	15,568
Coffee.....	879	246,205
Iron and steel.....	71	2,140
Dried fruit.....	34	6,940
All other merchandise.....	53,744	5,374,407.
Stone, lime and clay.....	327,710	852,048
Phosphate.....	1,910	38,206
Oats.....	18,192	568,500
Sundries.....	11,620	1,162,193
Domestic spirits.....	52	131,660
Flax seed.....	54	2,160
Domestic woolens.....	80	96,768
Total tons and value.....	579,646	\$12,965,609

STATEMENT showing the total quantity (in tons of 2,000 pounds) of property cleared on the Oswego canal during the season of 1911, and the value of the same.

ARTICLES.	Tons.	Value.
Boards and scantling . . . . .	2,225	\$40,050
Wood . . . . .	406	580
Domestic salt . . . . .	2,087	20,872
Barley . . . . .	3,554	177,720
Pulp wood . . . . .	20,855	114,703
All other merchandise . . . . .	9,570	958,100
Stone, lime and clay . . . . .	44,431	111,076
Anthracite coal . . . . .	1,310	6,551
Sundries . . . . .	8,272	827,150
Ice . . . . .	15,112	37,779
Bituminous coal . . . . .	5,854	14,636
Wheat . . . . .	210	7,350
Furniture . . . . .	5	1,000
Total tons and value . . . . .	113,891	\$2,317,567

STATEMENT showing the total quantity (in tons of 2,000 pounds) of property left on the Oswego canal during the season of 1911, and the value of the same.

ARTICLES.	Tons.	Value.
Boards and scantling . . . . .	2,225	\$40,050
Wood . . . . .	406	580
Wheat . . . . .	210	7,350
Barley . . . . .	3,554	177,720
Domestic salt . . . . .	1,887	18,872
All other merchandise . . . . .	9,475	948,600
Stone, lime and clay . . . . .	45,052	112,630
Anthracite coal . . . . .	1,141	5,705
Sundries . . . . .	8,249	824,875
Pulp wood . . . . .	20,855	114,703
Ice . . . . .	15,112	37,779
Bituminous coal . . . . .	5,854	14,636
Furniture . . . . .	5	1,000
Total tons and value . . . . .	114,025	\$2,304,500

STATEMENT showing the total quantity (in tons of 2,000 pounds)  
of property cleared on the Black River canal during the season  
of 1911, and the value of the same.

ARTICLES.	Tons.	Value.
Boards and scantling . . . . .	434	\$7,815
Wood . . . . .	958	1,368
Potatoes . . . . .	243	6,075
All other merchandise . . . . .	5,529	552,961
Bituminous coal . . . . .	1,774	4,434
Corn . . . . .	28	800
Oats . . . . .	24	750
Bran and ship stuffs . . . . .	3	83
Stone, lime and clay . . . . .	71,367	178,416
Anthracite coal . . . . .	1,275	6,377
Castings and iron ware . . . . .	285	17,100
Total tons and value . . . . .	81,920	\$776,179

STATEMENT showing the total quantity (in tons of 2,000 pounds)  
of property left on the Black River canal during the season of  
1911, and the value of the same.

ARTICLES.	Tons.	Value.
Boards and scantling . . . . .	434	\$7,815
Wood . . . . .	958	1,368
Corn . . . . .	28	800
Oats . . . . .	24	750
Bran and ship stuffs . . . . .	3	83
All other merchandise . . . . .	4,993	499,320
Stone, lime and clay . . . . .	70,594	176,484
Castings and iron ware . . . . .	285	17,100
Anthracite coal . . . . .	1,139	5,693
Bituminous coal . . . . .	1,769	8,843
Potatoes . . . . .	243	6,075
Total tons and value . . . . .	80,470	\$724,331

STATEMENT showing the total quantity (in tons of 2,000 pounds) of property cleared on the Cayuga and Seneca canal during the season of 1911, and the value of the same.

ARTICLES.	Tons.	Value.
Wheat.....	339	\$11,865
Boards and scantling.....	3	60
Domestic salt.....	32,568	325,686
All other merchandise.....	3,469	346,900
Anthracite coal.....	4,435	22,176
Bituminous coal.....	28,446	71,115
Stone, lime and clay.....	25,396	63,491
Corn.....	3,937	112,475
Sundries.....	226	22,600
Dried fruit.....	35	7,000
Total tons and value.....	98,854	\$983,368

STATEMENT showing the total quantity (in tons of 2,000 pounds) of property left on the Cayuga and Seneca canal during the season of 1911, and the value of the same.

ARTICLES.	Tons.	Value.
Boards and scantling.....	3	\$60
Wheat.....	159	5,565
All other merchandise.....	1,550	155,000
Stone, lime and clay.....	12,473	41,640
Anthracite coal.....	3,350	13,419
Bituminous coal.....	26,546	80,897
Domestic salt.....	30,224	302,233
Sundries.....	179	17,900
Total tons and value.....	74,484	\$616,714

STATEMENT showing the total quantity (in tons of 2,000 pounds) of property cleared at Whitehall during the season of 1911, and the value of the same.

ARTICLES.	Tons.	Value.
Boards and scantling.....	95,011	\$1,710,195
Timber.....	11,160	139,500
Wood.....	25,584	36,548
Pulp wood.....	148,658	817,617
Apples.....	197	6,239
Pig iron.....	336	5,040
Hay.....	29,573	739,334
All other merchandise.....	183	18,274
Stone, lime and clay.....	108,640	271,601
Iron ore.....	9,903	49,515
Sundries.....	1,004	100,348
Wood pulp.....	25,271	505,426
Total tons and value.....	455,520	\$4,399,637

STATEMENT showing the total quantity (in tons of 2,000 pounds) of property left at Whitehall during the season of 1911, and the value of the same.

ARTICLES.	Tons.	Value.
Boards and scantling.....	2,002	\$36,040
Wood.....	25,584	36,548
Pulp wood.....	148,658	817,617
Foreign salt.....	743	7,430
Wood pulp.....	25,439	508,786
All other merchandise.....	5,197	519,681
Stone, lime and clay.....	138,495	346,239
Anthracite coal.....	102,823	514,113
Bituminous coal.....	13,533	33,833
Sundries.....	13	1,250
Timber.....	11,200	140,000
Total tons and value.....	473,687	\$2,961,537

ANNUAL STATEMENT showing the total quantity of shipments of each article first cleared on the canal at  
and the total quantity of shipments of each article left from the canal at Whitehall from the 15th of  
May to the 15th of November, 1911, going to and coming from New York, Vermont and Canada.

ARTICLES.	QUANTITY CLEARED			
	Coming from Canada.	Coming from New York.	Coming from Vermont.	Total cleared.
<b>THE FOREST.</b>				
<i>Product of wood:</i>				
Boards and scantling (feet).....	53,016,077	2,020,604	1,969,820	57,006,501
Timber (cubic feet).....	.....	558,000	.....	558,000
Wood (cords).....	.....	9,137	.....	9,137
Pulp wood (pounds).....	294,794,400	2,520,800	.....	297,315,200
Wood pulp (pounds).....	46,552,190	3,990,400	.....	50,542,590
<b>AGRICULTURE.</b>				
<i>Vegetable food:</i>				
Hay (pounds).....	57,182,846	1,963,863	.....	59,146,709
Apples (barrels).....	.....	.....	2,773	2,773
<b>MANUFACTURES.</b>				
Pig iron (pounds).....	.....	672,000	.....	672,000
<b>MERCHANDISE.</b>				
All other merchandise (pounds).....	.....	365,485	.....	365,485



*Statement showing the total quantity of shipments of each article first cleared on canal, etc.—(Continued).*

ARTICLES.	QUANTITY CLEARED			
	Coming from Canada.	Coming from New York.	Coming from Vermont.	Total cleared.
<i>Other articles:</i>				
Stone, lime and clay (pounds) . . . . .	.....	217,280,800	.....	217,280,800
Iron ore (pounds) . . . . .	.....	19,806,080	.....	19,806,080
Sundries (pounds) . . . . .	.....	25,000	1,981,950	2,006,950

Statement showing the total quantity of shipments of each article first cleared on canal, etc.—(Concluded).

ARTICLES.	QUANTITY LEFT.			
	Going to Canada.	Going to New York.	Going to Vermont.	Total left.
<b>THE FOREST.</b>				
<i>Product of wood:</i>				
Boards and scantling (feet) . . . . .		739,833	461,513	1,201,346
Timber (cubic feet) . . . . .		560,000		560,000
Wood (cords) . . . . .		9,137		9,137
Pulp wood (pounds) . . . . .		297,315,200		297,315,200
Wood pulp (pounds) . . . . .		50,878,590		50,878,590
<b>MANUFACTURES.</b>				
Foreign salt (pounds) . . . . .	705,600		780,500	1,486,100
<b>MERCHANDISE.</b>				
All other merchandise (pounds) . . . . .	8,927,620	10,000	1,456,000	10,393,620
<i>Other articles:</i>				
Stone, lime and clay (pounds) . . . . .	57,877,300	213,364,480	5,749,650	276,991,430
Anthracite coal (pounds) . . . . .	163,322,580	8,209,880	34,112,620	205,645,080
Bituminous coal (pounds) . . . . .	3,747,860	11,390,180	11,927,980	27,066,020
Sundries (pounds) . . . . .		25,000		25,000

*The following statement shows the average lake and canal rates on wheat and corn since 1890.*

YEAR.	Freight, Buffalo to New York.	Tolls.	Lake freight.
1890.	c. m. fr.	c. m. fr.	c. m. fr.
Wheat, per bushel . . . . .	3 8 7	Free.	1 9 8
Corn, per bushel . . . . .	3 3 9	Free.	1 6 9
1891.			
Wheat, per bushel . . . . .	3 5 3	Free.	.....
Corn, per bushel . . . . .	3 2 0	Free.	.....
1892.			
Wheat, per bushel . . . . .	3 4 4	Free.	2 2 1
Corn, per bushel . . . . .	3 5 5	Free.	1 9 5
1893.			
Wheat, per bushel . . . . .	4 6 5	.....	1 6 6
Corn, per bushel . . . . .	4 2 8	.....	1 4 5
1894.			
Wheat, per bushel . . . . .	3 1 3	.....	1 2 4
Corn, per bushel . . . . .	2 8 8	.....	1 1 5
1895.			
Wheat, per bushel . . . . .	2 2 0	.....	1 8 0
Corn, per bushel . . . . .	1 9 0	.....	1 7 0
1896.			
Wheat, per bushel . . . . .	3 7 0	.....	1 6 0
Corn, per bushel . . . . .	3 5 0	.....	1 3 0
1897.			
Wheat, per bushel . . . . .	1 8 4	.....	1 2 5
Corn, per bushel . . . . .	2 3 8	.....	1 4 2
1898.			
Wheat, per bushel . . . . .	2 8 7	.....	1 6 9
Corn, per bushel . . . . .	2 3 6	.....	1 5 6
1899.			
Wheat, per bushel . . . . .	2 9 2	.....	2 5 0
Corn, per bushel . . . . .	2 5 0	.....	2 4 0
1900.			
Wheat, per bushel . . . . .	2 5 1	.....	1 8 2
Corn, per bushel . . . . .	2 2 2	.....	1 6 5

*Average lake and canal rates on wheat and corn, etc.,—(Conclu'd).*

YEAR.	Freight, Buffalo to New York.	Tolls.	Lake freight.
1901.	c. m. fr.	c. m. fr.	c. m. fr.
Wheat, per bushel.....	3 4 6	.....	1 7 6
Corn, per bushel.....	3 1 1	.....	1 6 4
1902.			
Wheat, per bushel.....	3 7 3	.....	1 5 0
Corn, per bushel.....	3 4 6	.....	1 3 6
1903.			
Wheat, per bushel.....	4 0 3	.....	1 4 0
Corn, per bushel.....	3 6 5	.....	1 3 1
1904.			
Wheat, per bushel.....	3 1 4	.....	1 5 0
Corn, per bushel.....	2 6 7	.....	1 3 4
1905.			
Wheat, per bushel.....	3 8 7	.....	1 6 4
Corn, per bushel.....	3 3 4	.....	1 5 0
1906.			
Wheat, per bushel.....	4 2 4	.....	1 6 7
Corn, per bushel.....	3 8 6	.....	1 5 4
1907.			
Wheat, per bushel.....	5 0 7	.....	1 5 4
Corn, per bushel.....	4 6 6	.....	1 4 1
1908.			
Wheat, per bushel.....	5 0 0	.....	1 1 0
Corn, per bushel.....	4 6 0	.....	1 0 0
1909.			
Wheat, per bushel.....	3 9 0	.....	1 2 7
Corn, per bushel.....	3 5 3	.....	1 2 7
1910.			
Wheat, per bushel.....	4 0 8	.....	1 0 6
Corn, per bushel.....	3 7 1	.....	1 0 6
1911.			
Wheat, per bushel.....	4 3 6	.....	1 0 3
Corn, per bushel.....	3 9 0	.....	1 0 3

*Average rate on wheat and corn by lake, from Chicago to Buffalo,  
during the season of 1911.*

	Wheat.			Corn.		
May, per bushel.....	1	1	3	1	1	3
June, per bushel.....	0	9	7	0	9	7
July, per bushel.....	0	9	4	0	9	4
August, per bushel.....	1	0	0	1	0	0
September, per bushel.....	1	0	0	1	0	0
October, per bushel.....	1	0	6	1	0	6
November, per bushel.....	1	1	3	1	1	3
<hr/>						
	c. m. fr.			c. m. fr.		
Average . . . . .	1	0	3	1	0	3

*Average rate on wheat and corn by canal, from Buffalo, to New  
York, during the season of 1911.*

	Wheat.			Corn.		
May, per bushel.....	4	2	5	3	7	5
June, per bushel.....	4	0	6	3	5	7
July, per bushel.....	3	7	9	3	4	3
August, per bushel.....	4	3	0	3	9	3
September, per bushel.....	4	5	0	4	0	6
October, per bushel.....	4	6	3	4	0	8
November, per bushel.....	5	0	0	4	5	0
<hr/>						
	c. m. fr.			c. m. fr.		
Average . . . . .	4	3	6	3	9	0

*The following statement shows the number of clearances issued at each office during the season of 1911.*

Albany . . . . .	130
West Troy . . . . .	3,307
Rome . . . . .	4,194
Syracuse . . . . .	4,048
Rochester . . . . .	2,508
Tonawanda . . . . .	1,023
Buffalo . . . . .	1,484
Waterford . . . . .	2,200
Whitehall . . . . .	2,940
Oswego . . . . .	387
Waterloo . . . . .	300
Boonville . . . . .	953
<hr/>	
Total . . . . .	23,474
<hr/> <hr/>	

*Receipts by all routes at New York, May 1 to November 30, 1911.*

	Hudson.	Erie.	Pennsylvania.	D. L. & W.	West Shore.
Flour, barrels.....	400,565	519,595	589,601	405,795	1,281,233
Meal, barrels.....	.....	5,146	6,480	695	230
Meal, sacks.....	262,940	33,316	12,834	32,013	183,953
Wheat, bushels.....	80,400	2,296,800	1,384,800	5,805,600	6,458,400
Corn, bushels.....	56,250	1,154,250	186,750	680,625	2,884,500
Oats, bushels.....	4,657,350	4,411,825	404,125	3,144,550	306,525
Barley, bushels.....	8,925	25,500	.....	34,425	10,200
Rye, bushels.....	.....	.....	19,550	97,750	.....
Malt, bushels.....	1,009,500	34,500	.....	750,000	441,000
Peas, bushels.....	33,885	.....	800	7,550	1,300
Total grain.....	5,846,310	7,922,875	1,996,025	10,520,500	10,101,925
Flour, bushels.....	1,802,543	2,338,178	2,653,204	1,826,078	5,765,548
Meal, bushels.....	525,880	87,216	51,588	66,806	368,826
Grand total.....	8,174,733	10,348,269	4,700,817	12,413,384	16,236,299
Per cent.....	11.00	13.92	6.32	16.70	21.85

*Receipts by all routes at New York, etc.— (Continued).*

	L. V. R. R.	B. & O. R. R.	Various.	Total rail.
Flour, barrels.....	1,487,729	238,410	9,878	4,932,806
Meal, barrels.....	.....	6,990	.....	19,541
Meal, sacks.....	175,442	85,408	.....	785,906
Wheat, bushels.....	2,689,200	8,400	.....	18,723,600
Corn, bushels.....	388,125	.....	.....	5,350,500
Oats, bushels.....	552,050	22,875	48,800	13,548,100
Barley, bushels.....	15,300	.....	.....	94,350
Rye, bushels.....	.....	.....	.....	117,300
Malt, bushels.....	153,000	27,000	.....	2,415,000
Peas, bushels.....	7,000	.....	.....	50,535
Total grain.....	3,804,675	58,275	48,800	40,299,385
Flour, bushels.....	6,694,781	1,072,844	44,451	22,197,627
Meal, bushels.....	350,884	198,776	.....	1,649,976
Grand total.....	10,850,340	1,329,895	93,251	64,146,988
Per cent.....	14.59	1.79	0.12	86.29



*Receipts by all routes at New York, etc.— (Concluded).*

	River and coast.	Canal.	Total water.	Total rail and water.
Flour, barrels.....	10,214	.....	10,214	4,943,020
Meal, barrels.....	.....	.....	.....	19,541
Meal, sacks.....	.....	.....	.....	785,906
Wheat, bushels.....	.....	3,465,600	3,465,600	22,189,200
Corn, bushels.....	18,433	958,200	976,633	6,327,133
Oats, bushels.....	.....	2,483,000	2,483,000	16,031,100
Barley, bushels.....	.....	59,900	1,866,253	1,960,603
Rye, bushels.....	1,806,353	.....	107,615	224,915
Malt, bushels.....	138,000	928,300	1,066,300	3,481,300
Peas, bushels.....	179,534	.....	179,534	230,069
Total grain.....	2,249,935	7,895,000	10,144,935	50,444,320
Flour, bushels.....	45,963	.....	45,963	22,243,590
Meal, bushels.....	.....	.....	.....	1,649,976
Grand total.....	2,295,898	7,895,000	10,190,898	74,337,886
Per cent.....	3.09	10.62	13.71	100.00

*Receipts by all routes at New York, January 1 to December 31, 1911.*

	Hudson.	Erie.	Pennsylvania.	D. L. & W.	West Shore.
Flour, barrels.....	729,204	849,022	1,050,477	686,407	2,025,723
Meal, barrels.....	.....	14,830	12,738	996	430
Meal, sacks.....	443,780	55,394	51,360	77,944	304,187
Wheat, bushels.....	168,000	3,000,000	1,706,400	8,366,400	8,222,400
Corn, bushels.....	195,750	4,586,625	1,075,500	931,500	7,677,000
Oats, bushels.....	7,454,200	6,999,750	480,375	5,590,650	506,300
Barley, bushels.....	29,325	100,725	10,200	260,100	77,775
Rye, bushels.....	3,450	14,950	49,450	97,750	6,900
Malt, bushels.....	1,926,000	153,000	9,000	1,045,500	7,965,500
Peas, bushels.....	71,085	1,600	1,600	23,883	2,100
Total grain.....	9,847,810	14,856,650	3,332,525	16,315,783	17,288,975
Flour, bushels.....	3,281,417	3,820,599	4,727,147	3,088,831	9,115,754
Meal, bushels.....	887,560	170,108	153,672	159,872	610,094
Grand total.....	14,016,787	18,847,357	8,213,344	19,564,486	27,014,823
Per cent .....	11.76	15.80	6.89	16.41	22.66

*Receipts by all routes at New York, etc.— (Continued).*

	L. V. R. R.	B. & O. R. R.	Various.	Total rail.
Flour, barrels.....	2,536,388	341,016	67,458	8,285,695
Meal, barrels.....	.....	17,974	.....	46,968
Meal, sacks.....	266,915	160,013	.....	1,359,593
Wheat, bushels.....	3,469,200	8,400	.....	24,940,800
Corn, bushels.....	586,125	3,375	14,625	15,070,500
Oats, bushels.....	843,325	25,925	265,350	22,165,875
Barley, bushels.....	21,675	.....	.....	499,800
Rye, bushels.....	1,150	.....	2,300	175,950
Malt, bushels.....	282,000	42,000	.....	4,254,000
Peas, bushels.....	11,350	500	.....	112,118
Total grain.....	5,214,825	80,200	282,275	67,219,043
Flour, bushels.....	11,413,746	1,534,572	303,561	37,285,627
Meal, bushels.....	533,830	391,922	.....	2,907,058
Grand total.....	17,162,401	2,006,694	585,836	107,411,728
Per cent.....	14.38	1.70	0.50	90.10

*Receipts by all routes at New York, etc.— (Concluded).*

	River and coast.	Canal.	Total water.	Total rail and water.
Flour, barrels.....	18,636	.....	18,636	8,304,331
Meal, barrels.....	.....	.....	.....	46,968
Meal, sacks.....	.....	.....	.....	1,359,593
Wheat, bushels.....	.....	3,465,600	3,465,600	28,406,400
Corn, bushels.....	32,658	958,200	990,858	16,061,358
Oats, bushels.....	1,635	2,483,000	2,484,635	24,650,510
Barley, bushels.....	3,329,017	59,900	3,388,917	3,888,717
Rye, bushels.....	126,047	.....	126,047	301,997
Malt, bushels.....	156,000	928,300	1,084,300	5,338,300
Peas, bushels.....	184,035	.....	184,035	296,153
Total grain.....	3,829,392	7,895,000	11,724,392	78,943,435
Flour, bushels.....	83,862	.....	83,862	37,369,489
Meal, bushels.....	.....	.....	.....	2,907,058
Grand total.....	3,913,254	7,895,000	11,808,254	119,219,982
Per cent.....	3.28	6.62	9.90	100.00

*The following table shows the separate tonnage of the New York Central, the Erie railway and the canals each year since 1853.*

YEAR.	New York Central.	Erie.	Canals.	Total.
1853.....	360,000	631,039	4,247,853	5,238,892
1854.....	549,804	743,250	4,165,862	5,458,916
1855.....	670,073	842,048	4,022,617	5,534,738
1856.....	776,112	943,215	4,116,084	5,835,409
1857.....	838,791	978,066	3,344,061	5,160,918
1858.....	765,407	816,954	3,665,192	5,247,553
1859.....	834,319	869,073	3,781,684	5,485,076
1860.....	1,028,183	1,139,554	4,650,554	6,817,951
1861.....	1,167,302	1,253,418	4,507,635	6,928,355
1862.....	1,387,433	1,632,955	5,598,785	8,619,173
1863.....	1,449,604	1,815,096	5,557,692	8,822,392
1864.....	1,557,148	2,170,798	4,852,941	8,580,887
1865.....	1,275,299	2,234,350	4,729,654	8,239,303
1866.....	1,602,197	3,242,792	5,775,220	10,620,209
1867.....	1,667,926	3,484,546	5,688,325	10,840,797
1868.....	1,846,599	3,908,243	6,442,225	12,197,067
1869.....	2,281,885	4,312,209	5,859,080	12,453,174
1870.....	4,122,000	4,852,505	6,173,769	15,148,274
1871.....	4,532,956	4,844,208	6,467,888	15,844,152
1872.....	4,393,965	5,564,274	6,673,370	16,631,609

1873.....	5,522,724	6,312,702	6,364,782	18,200,208
1874.....	6,114,678	6,364,276	5,804,588	18,283,542
1875.....	6,001,954	6,239,946	4,859,858	17,101,758
1876.....	6,803,680	5,972,818	4,172,129	16,948,627
1877.....	6,351,356	6,182,451	4,955,963	17,489,770
1878.....	7,695,413	6,150,568	5,171,320	19,017,301
1879.....	9,015,753	8,212,641	5,362,372	22,590,766
1880.....	10,533,038	8,715,892	6,457,556	25,706,486
1881.....	11,591,379	11,086,823	5,179,192	27,857,394
1882.....	11,330,393	11,895,238	5,467,423	28,693,054
1883.....	10,892,440	13,610,623	5,684,956	30,168,019
1884.....	10,212,418	11,071,938	5,009,488	26,293,844
1885.....	10,733,499	10,253,489	4,731,784	25,718,772
1886.....	12,636,485	18,668,238	5,293,982	36,598,705
1887.....	14,531,726	13,949,260	5,553,805	34,034,791
1888.....	15,162,812	15,174,009	4,942,948	35,279,769
1889.....	15,011,541	14,084,132	5,370,369	34,466,042
1890.....	16,108,441	16,269,656	5,246,102	37,624,199
1891.....	16,621,576	17,339,140	4,563,472	38,524,188
1892.....	20,721,752	18,334,716	4,281,995	43,388,463
1893.....	21,312,072	17,309,198	4,031,963	42,953,233
1894.....	18,728,592	15,305,260	3,882,560	37,916,412
1895.....	19,741,495	12,928,530	3,500,314	36,170,339
1896.....	22,123,617	22,562,243	3,714,894	48,400,754
1897.....	20,649,810	19,443,898	3,617,804	43,711,512
1898.....	23,403,439	22,547,529	3,360,063	49,311,031
1899.....	25,356,474	22,660,236	3,686,051	51,702,761

*Separate tonnage of the New York Central, the Erie railway and the canals, etc.— (Concluded).*

YEAR.	New York Central.	Erie.	Canals.	Total.
1900.	37,586,496	26,501,104	3,345,941	65,433,541
1901.	37,403,122	24,817,112	3,420,613	65,640,847
1902.	42,552,586	26,248,575	3,274,610	72,075,771
1903.	38,081,380	30,586,743	3,616,385	72,283,508
1904.	36,379,655	28,992,293	3,138,547	68,510,495
1905.	39,734,512	30,791,733	3,226,896	73,753,141
1906.	43,268,731	35,434,584	3,540,907	82,244,222
1907.	45,967,208	38,201,663	3,407,914	87,576,785
1908.	41,980,236	32,860,498	3,051,877	77,892,611
1909.	40,894,086	32,000,752	3,116,536	76,011,374
1910.	46,642,539	37,630,297	3,073,412	87,346,248
1911.	46,893,761	36,502,080	3,097,068	86,492,909

*The following table shows the losses or gains in the tonnage of the New York Central, the Erie railway and the canals each year since 1853, comparison being made with previous year.*

YEAR.	NEW YORK CENTRAL.		ERIE.		CANALS.	
	Gain.	Loss.	Gain.	Loss.	Gain.	Loss.
1854.	189,804	.....	112,211	.....	.....	81,991
1855.	120,269	.....	19,798	.....	.....	143,245
1856.	106,039	.....	101,167	.....	93,456	.....
1857.	62,679	.....	34,851	.....	.....	772,021
1858.	.....	73,284	.....	161,112	321,131	.....
1859.	68,912	.....	53,119	.....	116,492	.....
1860.	193,864	.....	270,481	.....	868,530	.....
1861.	139,119	.....	113,864	.....	.....	142,579
1862.	220,131	.....	379,537	.....	1,091,150	.....
1863.	62,171	.....	182,141	.....	.....	41,093
1864.	107,544	.....	355,702	.....	.....	704,751
1865.	.....	281,849	63,552	.....	.....	123,287
1866.	326,898	.....	1,008,442	.....	1,045,566	.....
1867.	65,729	.....	241,754	.....	.....	86,895
1868.	178,673	.....	423,697	.....	753,900	.....
1869.	435,286	.....	403,966	.....	.....	583,145
1870.	1,840,115	.....	540,296	.....	314,689	.....
1871.	410,056	.....	.....	8,297	294,119	.....
1872.	.....	138,091	720,066	.....	205,482	.....
1873.	1,128,759	.....	748,430	.....	.....	308,588



*Table showing the losses or gains in the tonnage of the New York Central, the Erie railway and the canals.  
etc. — (Concluded).*

YEAR.	NEW YORK CENTRAL.		ERIE.		CANALS.	
	Gain.	Loss.	Gain.	Loss.	Gain.	Loss.
1874.....	591,954	.....	51,574	.....	.....	560,194
1875.....	.....	112,724	.....	124,330	.....	944,730
1876.....	801,726	.....	.....	267,128	.....	687,729
1877.....	.....	452,324	209,633	.....	783,834	.....
1878.....	1,344,057	.....	.....	31,833	215,357	.....
1879.....	1,320,340	.....	2,062,073	.....	191,052	.....
1880.....	1,517,285	.....	503,251	.....	1,095,284	.....
1881.....	1,058,341	.....	2,370,931	.....	.....	1,278,464
1882.....	.....	260,986	808,415	.....	228,231	.....
1883.....	.....	437,953	1,715,385	.....	196,633	.....
1884.....	.....	806,022	2,608,975	.....	.....	654,568
1885.....	521,081	.....	.....	818,449	.....	277,704
1886.....	1,902,936	.....	8,414,750	.....	562,198	.....
1887.....	1,895,291	.....	.....	4,718,978	259,823	.....
1888.....	631,086	.....	1,224,749	.....	.....	610,857
1889.....	.....	151,271	.....	89,877	427,421	.....
1890.....	1,096,900	.....	1,185,524	.....	.....	124,267
1891.....	513,126	.....	1,069,884	.....	.....	682,530
1892.....	4,100,176	.....	995,576	.....	.....	281,477
1893.....	590,220	.....	.....	1,025,518	49,968	.....

1894.....	2,583,480	.....	2,003,938	.....	449,403
1895.....	.....	.....	2,376,730	.....	382,246
1896.....	.....	9,633,712	.....	214,580	.....
1897.....	1,473,807	.....	3,118,345	.....	97,090
1898.....	.....	3,103,631	.....	.....	257,741
1899.....	.....	112,707	.....	325,988	.....
1900.....	.....	1,840,868	.....	.....	340,110
1901.....	183,374	316,008	.....	74,672	.....
1902.....	.....	1,431,463	.....	.....	146,003
1903.....	4,471,206	4,338,168	.....	340,775	.....
1904.....	1,701,725	.....	1,594,450	.....	476,838
1905.....	.....	1,799,440	.....	83,349	.....
1906.....	.....	4,642,851	.....	314,011	.....
1907.....	.....	2,767,079	.....	.....	132,993
1908.....	3,986,972	.....	5,341,165	.....	356,037
1909.....	1,086,150	.....	859,746	64,659	.....
1910.....	.....	5,629,545	.....	.....	43,124
1911.....	.....	.....	1,128,217	23,656	.....

*The total tons coming to tide-water for each of the seventy-four years and the aggregate value thereof, in market as follows:*

YEAR.	Tons.	Value.
1838.....	640,481	\$23,038,510
1839.....	602,128	20,163,190
1840.....	699,012	23,213,573
1841.....	774,334	27,225,322
1842.....	666,626	22,751,013
1843.....	836,861	28,453,408
1844.....	1,019,094	34,183,167
1845.....	1,204,943	45,452,321
1846.....	1,362,319	51,105,256
1847.....	1,744,283	73,092,414
1848.....	1,447,905	50,883,907
1849.....	1,579,946	52,375,521
1850.....	2,033,863	55,474,637
1851.....	1,977,151	53,927,508
1852.....	2,234,822	66,833,102
1853.....	2,505,797	73,688,044
1854.....	2,223,743	72,120,681
1855.....	1,890,593	74,177,937
1856.....	2,123,469	74,286,735
1857.....	1,617,187	51,190,018
1858.....	1,985,142	61,536,061
1859.....	2,121,672	43,175,312
1860.....	2,854,877	78,798,617
1861.....	2,980,144	81,432,759
1862.....	3,402,709	111,176,568
1863.....	3,274,727	123,173,294
1864.....	2,805,257	145,609,202
1865.....	2,730,181	113,865,846
1866.....	3,305,607	131,801,477
1867.....	3,029,695	120,902,834
1868.....	3,240,806	136,446,582
1869.....	3,096,142	144,866,060
1870.....	3,156,302	105,517,020
1871.....	3,494,801	106,874,570
1872.....	3,647,944	107,086,362
1873.....	3,376,649	97,869,497
1874.....	3,123,112	107,976,476
1875.....	2,608,777	89,447,518
1876.....	2,426,182	73,893,878

*Total tons coming to tide-water, etc.—(Concluded).*

YEAR.	Tons.	Value.
1877.....	2,986,812	\$76,787,713
1878.....	3,637,101	78,563,710
1879.....	3,286,176	96,992,498
1880.....	4,067,402	143,572,991
1881.....	3,065,839	68,785,451
1882.....	3,068,152	74,303,139
1883.....	2,892,176	66,219,034
1884.....	2,900,788	66,718,124
1885.....	2,715,219	55,130,473
1886.....	3,215,177	67,517,864
1887.....	3,158,923	71,755,221
1888.....	2,584,661	58,801,038
1889.....	2,623,836	62,780,410
1890.....	3,024,765	62,920,266
1891.....	2,286,855	57,340,280
1892.....	2,336,519	73,698,295
1893.....	2,565,845	77,217,815
1894.....	2,256,895	51,740,449
1895.....	1,603,745	34,122,010
1896.....	2,073,378	41,985,498
1897.....	1,878,218	30,493,208
1898.....	1,609,472	27,272,655
1899.....	1,665,217	28,019,204
1900.....	1,340,631	21,249,492
1901.....	1,306,714	23,807,093
1902.....	1,240,124	21,553,144
1903.....	1,158,539	19,282,983
1904.....	938,691	16,397,293
1905.....	1,070,343	18,243,618
1906.....	1,071,072	19,429,730
1907.....	869,621	18,667,341
1908.....	855,920	15,207,680
1909.....	794,007	15,860,858
1910.....	761,260	16,090,821
1911.....	658,256	14,959,381

*The tons of the total movement of articles on all the canals, from 1837 to 1911, both years inclusive, were as follows.*

YEAR.	Product of the forest.	Agriculture.	Manufactures.	Merchandise.	Other articles.	Total.
1837.....	618,741	208,043	81,735	94,777	168,000	1,171,296
1838.....	665,089	255,227	101,526	124,290	186,879	1,333,011
1839.....	667,551	266,052	11,968	132,286	257,826	1,435,713
1840 Genesee Valley canal opened.....						
1841.....	587,647	393,780	100,367	112,021	222,231	1,416,046
1842.....	645,548	391,905	127,896	141,054	215,258	1,521,661
1843.....	504,597	401,276	98,968	101,446	130,644	1,236,931
1844.....	687,184	455,797	124,277	119,209	126,972	1,513,439
1845.....	864,373	509,387	144,245	141,930	156,651	1,816,586
1846.....	881,774	555,160	160,638	151,450	228,543	1,977,565
1847.....	916,976	814,258	149,006	169,799	218,623	2,268,662
1848.....	1,086,056	1,092,946	176,448	224,890	287,812	2,869,810
1849.....	1,086,080	913,824	202,781	261,458	331,287	2,796,230
1850.....	1,104,940	1,020,259	203,990	255,455	310,088	2,894,732
1851.....	1,261,991	965,619	200,218	269,370	379,419	3,076,617
1852.....	1,393,698	1,125,264	222,529	365,404	475,838	3,582,733
1853.....	1,586,080	1,213,357	207,955	420,295	435,754	3,863,441
1854.....	1,821,525	1,150,924	230,036	458,327	587,041	4,247,853
1855.....	1,768,745	992,839	258,021	406,022	740,235	4,165,862
1855.....	1,534,493	1,047,344	281,873	374,402	784,064	4,022,617

1856.	1,478,664	1,192,673	284,901	370,768	789,076	4,116,082
1857.	1,364,002	767,370	232,803	222,954	756,932	3,344,061
1858.	1,232,968	1,279,891	295,903	188,441	667,989	3,665,192
1859.	1,542,035	816,784	299,421	211,182	912,262	3,781,684
1860.	1,509,977	1,682,754	268,759	250,360	938,364	4,650,124
1861.	1,052,392	2,144,373	280,256	135,096	895,518	4,507,635
1862.	1,569,674	2,494,036	364,877	167,927	1,002,271	5,598,785
1863.	1,628,688	2,236,075	319,432	172,278	1,201,219	5,557,692
1864.	1,478,921	1,572,836	282,354	143,984	1,374,846	4,852,941
1865.	1,467,315	1,696,091	281,832	154,968	1,129,448	4,729,654
1866.	1,769,994	1,786,060	302,241	179,878	1,737,047	5,775,220
1867.	1,744,252	1,438,517	320,844	319,880	1,964,832	5,688,325
1868.	1,958,309	1,442,147	373,262	324,064	2,344,443	6,442,225
1869.	1,855,930	1,314,071	342,239	268,970	2,077,870	5,859,080
1870.	1,916,511	1,309,153	352,497	271,856	2,323,752	6,173,769
1871.	1,941,297	1,863,868	336,288	288,428	2,038,007	6,467,888
1872.	1,950,798	1,683,962	325,564	298,758	2,414,288	6,673,370
1873.	1,582,072	1,750,418	267,820	172,990	2,591,482	6,364,782
1874.	1,482,753	1,772,583	246,697	132,181	2,170,374	5,804,588
1875.	1,250,546	1,311,613	275,731	110,141	1,911,827	4,859,858
1876.	1,175,313	1,067,497	180,201	64,943	1,684,175	4,172,129
1877.	1,312,526	1,522,317	184,218	83,010	1,853,892	4,955,963
1878.	1,364,120	1,921,236	220,063	138,064	1,527,837	5,171,320
1879.	1,368,849	1,850,347	255,303	237,071	1,650,802	5,362,372
1880.	1,566,764	2,408,358	278,114	355,165	1,849,255	6,457,656
1881.	1,652,543	1,171,400	250,961	325,775	1,778,513	5,179,192
1882.	1,771,743	1,173,257	187,535	283,174	2,051,714	5,467,423

*The tons of the total movement of articles on all the canals, etc.— (Concluded).*

YEAR.	Product. of the forest.	Agriculture.	Manufactures.	Merchandise.	Other articles.	Total tons.
1883.	1,828,643	1,394,581	242,649	310,844	1,887,339	5,664,056
1884.	1,671,706	1,264,237	205,013	300,480	1,568,052	5,009,488
1885.	1,595,632	1,108,711	194,714	220,237	1,612,490	4,731,784
1886.	1,523,496	1,537,331	165,760	397,249	1,670,146	5,293,982
1887.	1,529,809	1,590,509	212,216	378,734	1,842,537	5,553,805
1888.	1,389,728	1,177,587	153,905	206,437	2,015,291	4,942,948
1889.	1,567,311	1,330,231	161,074	262,818	2,048,935	5,370,369
1890.	1,397,862	1,201,916	139,310	769,672	1,737,342	5,246,102
1891.	1,206,986	1,171,192	109,387	250,083	1,825,824	4,563,472
1892.	1,249,381	1,038,851	125,781	292,468	1,575,514	4,281,995
1893.	1,030,604	1,544,146	66,892	216,013	1,474,308	4,331,963
1894.	872,601	1,412,142	87,241	352,741	1,157,835	3,882,560
1895.	974,870	644,009	133,911	251,537	1,495,987	3,500,314
1896.	852,467	1,136,665	152,322	270,603	1,302,837	3,714,894
1897.	896,971	789,783	152,388	250,872	1,527,790	3,617,804
1898.	820,668	707,855	175,632	220,107	1,435,801	3,360,063
1899.	838,449	620,908	159,413	260,063	1,807,218	3,686,051
1900.	726,984	511,518	142,784	250,436	1,714,219	3,345,941
1901.	839,191	558,135	129,857	230,615	1,662,815	3,420,613
1902.	805,067	572,676	131,755	207,972	1,557,140	3,274,610
1903.	690,161	595,047	130,406	241,564	1,956,207	3,615,385

1904.....	738,793	427,969	129,665	200,472	1,641,648	3,138,547
1905.....	851,098	436,979	132,438	172,665	1,633,716	3,226,896
1906.....	854,610	648,715	170,584	202,285	1,664,713	3,540,907
1907.....	747,736	606,159	96,916	169,258	1,787,845	3,407,914
1908.....	565,443	449,846	106,371	166,061	1,764,156	3,051,877
1909.....	647,739	447,217	163,871	194,273	1,663,436	3,116,536
1910.....	654,094	492,536	145,419	215,446	1,565,917	3,073,412
1911.....	656,500	355,301	137,463	166,419	1,781,385	3,097,068



*Total tons of each class of articles which came to the Hudson river from the Erie and Champlain canals, from 1837 to 1911, both inclusive.*

YEAR.	Product of the forest.	Agriculture.	Manufactures.	Merchandise.	Other articles.	Total tons.
1837	385,017	151,469	10,124	394	64,777	611,781
1838	400,877	182,142	8,478	298	48,677	640,481
1839	377,720	163,785	8,565	499	51,559	602,128
1840	321,709	302,356	8,665	104	16,178	669,012
1841	449,095	272,240	17,891	155	36,953	774,334
1842	321,480	293,177	16,015	185	35,769	666,626
1843	416,173	346,140	29,493	201	44,854	836,861
1844	545,202	383,363	39,957	246	62,627	1,031,395
1845	607,930	447,627	49,812	253	99,321	1,204,943
1846	603,010	628,454	46,076	1,797	82,982	1,362,319
1847	666,113	897,717	51,532	4,831	124,090	1,744,283
1848	603,272	685,896	44,867	6,343	107,527	1,447,905
1849	665,547	769,600	44,288	5,873	94,638	1,579,949
1850	947,768	926,048	39,669	7,105	113,273	2,033,863
1851	913,268	891,420	52,302	4,580	115,581	1,977,151
1852	1,064,677	989,268	47,512	10,605	122,760	2,234,822
1853	1,340,261	932,189	52,817	12,633	167,897	2,505,797
1854	1,103,018	846,447	40,082	14,632	219,564	2,223,743
1855	877,805	782,604	44,844	15,559	174,781	1,895,593
1856	858,771	1,023,417	50,454	14,073	176,754	2,123,469

1857	798,986	561,894	55,611	16,987	183,709	1,617,187
1858	817,613	929,789	74,981	15,233	147,526	1,985,142
1859	1,123,607	610,317	63,079	15,804	308,865	2,121,672
1860	1,137,873	1,373,393	66,696	11,235	265,407	2,824,877
1861	690,586	1,934,247	43,074	8,405	303,832	2,980,144
1862	968,062	2,152,159	45,502	5,470	231,516	3,402,709
1863	1,049,559	1,898,253	56,268	5,123	265,524	3,274,727
1864	1,106,148	1,320,562	79,480	3,469	295,598	2,805,257
1865	1,051,616	1,379,831	58,211	4,302	236,721	2,730,181
1866	1,329,884	1,542,035	60,180	6,372	367,136	3,305,607
1867	1,359,287	1,143,712	77,250	5,196	444,250	2,029,695
1868	1,459,353	1,229,554	89,814	5,058	453,370	3,237,149
1869	1,453,419	1,087,105	84,623	4,122	465,873	3,096,142
1870	1,465,517	1,049,586	91,166	12,118	587,915	3,156,302
1871	1,347,979	1,571,754	94,911	7,603	473,554	3,495,801
1872	1,467,865	1,490,248	80,936	7,672	601,223	3,647,994
1873	1,308,471	1,421,469	46,421	12,091	588,197	3,376,649
1874	1,192,681	1,470,872	49,426	12,905	497,228	3,223,112
1875	813,275	1,175,495	70,209	8,341	541,457	2,608,777
1876	890,725	906,483	44,268	4,364	580,342	2,426,182
1877	978,366	1,362,700	53,545	5,341	586,860	2,986,812
1878	1,120,666	1,833,266	56,108	7,367	619,694	3,637,101
1879	1,043,970	1,710,539	46,928	15,299	469,440	3,286,176
1880	1,202,207	2,090,283	39,397	30,264	705,251	4,067,402
1881	1,367,938	1,165,347	53,013	15,466	464,085	3,068,359
1882	1,397,816	1,024,318	61,876	24,154	559,988	3,068,152

*Total tons of each class of articles which came to the Hudson river from Erie and Champlain canals, etc.—*  
*(Concluded).*

YEAR.	Product. of the forest.	Agriculture.	Manufactures.	Merchandise.	Other articles.	Total tons.
1883.	1,403,174	1,234,463	47,910	27,798	449,152	3,162,497
1884.	1,097,450	1,054,041	56,899	45,538	377,259	2,631,190
1885.	1,284,213	949,870	61,912	48,185	371,039	2,715,219
1886.	1,202,190	1,400,301	50,704	65,988	495,708	3,215,177
1887.	1,206,279	1,412,166	52,566	21,710	466,202	3,158,923
1888.	1,074,279	972,746	73,027	20,364	444,245	2,584,661
1889.	1,065,747	976,660	75,250	16,428	489,751	2,623,836
1890.	1,086,408	901,407	65,098	524,179	447,673	3,024,765
1891.	817,228	980,612	51,524	53,924	383,549	2,286,855
1892.	997,436	865,958	71,380	53,946	347,799	2,366,519
1893.	784,052	1,348,103	37,972	46,526	313,192	2,565,845
1894.	676,155	1,189,935	58,646	103,430	228,729	2,256,895
1895.	649,605	442,595	96,356	40,306	374,883	1,603,745
1896.	603,545	963,253	84,605	35,107	386,868	2,073,378
1897.	634,618	633,753	108,871	32,830	486,146	1,878,218
1898.	527,830	552,054	94,465	27,239	342,985	1,544,573
1899.	584,668	465,266	114,659	17,771	482,853	1,665,217
1900.	444,719	369,984	112,960	15,193	397,775	1,340,631
1901.	382,822	429,356	75,803	11,257	355,165	1,254,403

1902.....	336,242	407,281	88,804	9,701	361,056	1,203,084
1903.....	296,425	417,418	111,132	7,617	325,947	1,158,539
1904.....	253,525	292,756	119,837	4,250	268,323	938,691
1905.....	328,517	302,173	116,057	6,446	317,150	1,070,343
1906.....	320,177	374,422	108,880	6,553	261,040	1,071,072
1907.....	232,625	329,707	65,680	5,357	236,252	869,621
1908.....	155,507	255,925	80,984	4,880	358,624	855,920
1909.....	197,667	269,031	113,850	10,500	202,959	794,007
1910.....	200,807	301,646	103,448	9,216	146,143	761,260
1911.....	191,649	227,168	99,864	4,107	135,468	658,256

The tonnage of the canals for the season of 1911 was composed of the following described class of articles:

	Tons.
Product of the forest . . . . .	656,500
Agriculture . . . . .	355,301
Manufactures . . . . .	137,463
Merchandise . . . . .	166,419
Other articles . . . . .	1,781,385
	<hr/>
Total tons. . . . .	3,097,068
	<hr/> <hr/>

Of this amount:

	Tons.
Eric canal carried. . . . .	2,031,735
Champlain canal carried. . . . .	770,668
Black river canal carried. . . . .	81,920
Cayuga and Seneca canal carried. . . . .	98,854
Oswego canal carried. . . . .	113,891
	<hr/>
Total tons. . . . .	3,097,068
	<hr/> <hr/>

EXPORTS of flour, wheat and corn from New York, Baltimore, Philadelphia, Boston, New Orleans and Montreal  
and the percentage of the exports from each port.

	Flour, barrels.	Wheat, bushels.	Corn, bushels.	PERCENTAGE OF TOTAL EXPORTS AT PLACES NAMED.		
				Flour.	Wheat.	Corn.
	1880.	1880.	1880.			
New York.....	4,215,415	61,909,929	49,875,430	56.2	49.3	43.9
Boston.....	1,105,473	3,513,817	11,454,256	14.7	02.8	10.0
Philadelphia.....	288,656	12,342,492	18,172,396	03.8	09.9	16.0
Baltimore.....	525,985	33,678,376	15,244,895	07.0	26.8	13.4
Montreal.....	729,007	9,084,266	7,622,161	099.	07.1	06.8
New Orleans.....	626,418	5,169,497	11,177,045	08.4	04.1	09.9
Total.....	7,500,950	125,698,377	113,546,183			
During the year 1880 the canals car- ried through freight going east.....						
	17,166	29,285,366	39,154,785	00.2	23.2	34.4
	1881.	1881.	1881.			
New York.....	4,507,052	41,788,708	31,614,480	59.9	48.2	42.7
Boston.....	1,109,583	3,081,232	8,038,627	14.8	03.6	10.8
Philadelphia.....	190,842	8,860,522	6,799,457	02.5	10.2	09.2
Baltimore.....	437,701	19,682,935	12,650,303	05.8	22.7	17.2

*Exports of flour, wheat and corn from New York, etc.—(continued).*

	Flour, barrels.	Wheat, bushels.	Corn, bushels.	PERCENTAGE OF TOTAL EXPORTS AT PLACES NAMED.		
				Flour.	Wheat.	Corn.
1881.						
	632,821	6,554,622	3,359,084	08.4	07.6	04.5
	642,460	6,707,982	11,508,685	08.6	07.7	15.6
Total.....	7,520,459	86,676,001	73,970,636			
During the year 1881 the canals car-						
ried through freight going east.....						
1882.						
	4,619,499	37,020,103	9,012,373	55.5	50.8	50.7
	1,468,146	2,843,058	2,100,503	17.6	04.0	11.8
Philadelphia.....	246,147	5,759,947	839,024	02.9	07.9	04.8
Baltimore.....	490,734	17,465,976	1,126,055	05.9	23.8	06.4
Montreal.....	775,862	6,913,290	672,850	09.3	09.5	03.7
New Orleans.....	729,749	2,890,698	4,024,325	08.8	04.0	22.6
Total.....	8,330,137	72,893,072	17,775,130			
During the year 1882 the canals car-						
ried through freight going east.....						
		18,901,666	7,270,607	.....	25.9	40.9

New York	1883. 4,330,146	1883. 20,049,200	1883. 22,222,754	56.3	43.6	44.5
Boston	1,766,172	694,384	4,634,509	22.9	01.5	09.3
Philadelphia	362,877	4,372,777	5,435,642	04.7	09.5	10.9
Baltimore	441,477	15,245,868	10,012,247	05.7	33.1	20.1
Montreal	776,242	5,008,167	4,530,731	10.1	10.1	09.1
New Orleans	22,061	651,430	3,061,224	00.3	01.4	06.1
Total	7,698,975	46,021,826	49,897,107			
During the year 1883 the canals carried through freight going east		16,466,633	16,799,321		35.7	33.6
New York	1884. 3,907,021	1884. 28,687,362	1884. 11,862,158	51.6	49.4	38.5
Boston	2,173,842	1,692,081	4,247,071	28.7	02.9	13.8
Philadelphia	203,460	5,775,658	1,610,392	02.6	09.9	05.2
Baltimore	444,249	16,524,524	5,651,605	05.9	28.4	18.3
Montreal	844,019	3,967,457	3,316,053	11.2	06.9	10.8
New Orleans	Not reported	1,405,219	4,089,507		02.5	13.4
Total	7,572,591	58,052,301	30,776,786			
During the year 1884 the canals carried through freight going east	213	24,322,200	5,638,357			



*Exports of flour, wheat and corn from New York, etc.—(Continued).*

	Flour, barrels.	Wheat, bushels.	Corn, bushels.	PERCENTAGE OF TOTAL EXPORTS AT PLACES NAMED.		
				Flour.	Wheat.	Corn.
	1885.	1885.	1885.			
New York.....	3,763,029	16,286,800	26,259,528	45.7	54.9	43.8
Boston.....	1,972,326	1,062,293	3,647,244	23.9	03.5	06.1
Philadelphia.....	695,287	3,369,915	6,028,564	08.4	11.1	10.1
Baltimore.....	1,093,098	4,575,262	13,752,196	13.3	15.1	22.9
New Orleans.....	25,158	96,930	7,825,641	00.3	00.3	13.1
Montreal.....	679,426	4,221,283	2,378,827	08.4	15.4	04.0
Total.....	8,228,319	29,612,483	59,891,800	100.0	100.0	100.0
During the season of 1885 the canals carried through freight going east.						
	296	16,379,100	10,883,500	.....	55.3	.....
	1890.	1890.	1890.			
New York.....	3,417,399	12,549,946	24,550,165	.....	.....	.....
Boston.....	1,289,197	497,889	4,590,085	.....	.....	.....
Philadelphia.....	844,480	699,274	16,844,797	.....	.....	.....
Baltimore.....	2,624,282	4,817,614	18,854,951	.....	.....	.....
Montreal.....	824,952	2,243,666	4,970,236	.....	.....	.....
Total.....	9,000,210	20,808,389	69,730,234			

New York	1891.	1891.	1891.	.....	.....
Boston	3,978,076	46,514,096	12,918,911	.....	.....
Philadelphia	1,560,673	2,196,782	3,946,411	.....	.....
Baltimore	1,156,342	6,876,608	2,782,678	.....	.....
Montreal	2,703,715	16,073,292	4,096,234	.....	.....
New Orleans	795,452	6,230,224	2,252,662	.....	.....
	52,015	10,336,496	1,912,173	.....	.....
Total	10,246,273	88,227,498	27,810,069	.....	.....
New York	1892.	1892.	1892.	.....	.....
Boston	6,034,260	45,259,966	18,293,353	.....	.....
Philadelphia	2,090,720	6,375,123	2,811,277	.....	.....
Baltimore	1,843,647	9,994,024	19,454,590	.....	.....
Montreal	3,661,643	16,661,559	18,995,907	.....	.....
New Orleans	601,243	8,379,562	1,763,854	.....	.....
	227,432	14,207,443	7,380,678	.....	.....
Total	14,458,925	100,877,677	68,699,659	.....	.....
New York	1893.	1893.	1893.	.....	.....
Boston	6,032,903	38,047,932	12,802,039	.....	.....
Philadelphia	1,855,471	3,934,125	5,505,966	.....	.....
Baltimore	1,376,434	5,657,398	3,985,406	.....	.....
Montreal, to November 1, only	3,331,374	13,048,702	7,486,403	.....	.....
	414,522	6,504,176	9,047,524	.....	.....
Total	13,010,704	67,192,333	38,827,338	.....	.....

*Exports of flour, wheat and corn from New York, etc.—(Continued).*

	Flour, barrels.	Wheat, bushels.	Corn, bushels.	PERCENTAGE OF TOTAL EXPORTS AT PLACES NAMED.		
				Flour.	Wheat.	Corn.
	1894.	1894.	1894.			
New York.....	5,814,657	21,612,790	10,329,787	.....	.....	.....
Boston.....	1,887,272	3,519,250	3,808,243	.....	.....	.....
Philadelphia.....	1,106,656	3,792,700	2,408,546	.....	.....	.....
Baltimore.....	2,725,321	7,875,548	7,064,799	.....	.....	.....
Montreal.....	654,192	5,502,128	2,104,912	.....	.....	.....
Total.....	12,188,098	42,302,416	25,716,287			
	1895.	1895.	1895.			
New York.....	4,009,157	18,348,193	17,891,140	.....	.....	.....
Boston.....	1,144,006	4,224,773	5,117,436	.....	.....	.....
Philadelphia.....	848,220	1,521,226	2,624,404	.....	.....	.....
Baltimore.....	2,315,196	3,880,536	7,252,590	.....	.....	.....
Montreal.....	1,341,752	3,827,201	2,462,306	.....	.....	.....
Total.....	9,958,331	31,801,929	35,347,876			
	1896.	1896.	1896.			
New York.....	4,817,439	18,476,263	19,160,190	.....	.....	.....
Boston.....	1,457,526	9,838,955	5,893,209	.....	.....	.....

Philadelphia.....	654, 128	4, 863, 886	829, 376	.....	.....
Baltimore.....	3, 065, 845	6, 589, 856	26, 382, 182	.....	.....
Montreal.....	772, 126	7, 027, 058	6, 778, 896	.....	.....
Total.....	10, 767, 064	46, 796, 018	58, 893, 853	.....	.....
New York.....	1897.	1897.	1897.	.....	.....
Boston.....	4, 699, 767	25, 085, 896	33, 206, 509	.....	.....
Philadelphia.....	1, 208, 731	9, 592, 108	9, 424, 644	.....	.....
Baltimore.....	815, 181	4, 801, 606	25, 140, 487	.....	.....
Montreal.....	2, 325, 803	15, 304, 039	43, 048, 008	.....	.....
Total.....	585, 813	9, 899, 308	9, 210, 222	.....	.....
New York.....	9, 635, 295	64, 682, 957	120, 029, 870	.....	.....
Boston.....	1898.	1898.	1898.	.....	.....
Philadelphia.....	4, 738, 214	49, 909, 158	39, 632, 273	.....	.....
Baltimore.....	1, 579, 687	12, 288, 159	11, 542, 828	.....	.....
Montreal.....	1, 614, 423	5, 660, 284	29, 851, 346	.....	.....
Total.....	2, 813, 166	18, 542, 034	45, 096, 477	.....	.....
New York.....	857, 558	8, 989, 669	19, 214, 299	.....	.....
Boston.....	11, 603, 051	95, 389, 295	145, 337, 223	.....	.....
Philadelphia.....	1899.	1899.	1899.	.....	.....
Baltimore.....	4, 741, 035	26, 830, 386	40, 429, 477	.....	.....
Montreal.....	1, 528, 257	11, 567, 847	17, 337, 608	.....	.....
Total.....	2, 101, 435	4, 013, 927	29, 458, 334	.....	.....

*Exports of flour, wheat and corn from New York, etc.—(Continued).*

	Flour, barrels.	Wheat, bushels.	Corn, bushels.	PERCENTAGE OF TOTAL EXPORTS AT PLACES NAMED.		
				Flour.	Wheat.	Corn.
Baltimore.....	1899. 3,367,485	1899. 9,549,270	1899. 46,786,127	.....	.....	.....
Montreal*.....	.....	.....	.....	.....	.....	.....
Total.....	11,738,212	51,961,430	134,011,546			
New York.....	1900. 4,487,306	1900. 18,259,428	1900. 43,532,024	37.24	31.70	26.22
Boston.....	1,606,175	11,028,357	14,072,326	13.33	19.15	8.47
Philadelphia.....	2,174,567	5,310,213	33,345,171	18.05	9.22	20.08
Baltimore.....	3,003,787	4,529,811	40,535,023	24.93	7.87	24.41
New Orleans.....	374,026	8,059,677	23,403,453	3.10	13.99	14.09
Montreal.....	403,385	10,408,501	11,168,489	3.35	18.07	6.73
Total.....	12,049,246	57,595,987	166,056,486	100	100	100
New York.....	1901. 4,092,711	1901. 27,140,388	1901. 23,831,380	33.10	23.76	26.03
Boston.....	1,496,163	17,910,887	10,331,712	12.10	15.67	11.28
Philadelphia.....	2,237,527	11,230,755	15,793,304	18.10	9.85	17.25
Baltimore.....	3,324,953	19,962,737	24,711,790	26.90	17.47	26.99

New Orleans.....	688,222	24,410,979	12,832,139	5.56	21.35	14.02
Montreal.....	524,494	13,594,686	4,059,790	4.24	11.90	4.43
Total.....	12,364,070	114,250,432	91,560,115	100	100	100
New York.....	1902.	1902.	1902.			
Boston.....	4,149,129	19,955,526	3,052,715	34.47	25.17	22.66
Philadelphia.....	901,325	8,454,795	804,038	7.50	10.66	5.97
Baltimore.....	2,521,791	8,816,457	2,423,437	20.95	11.12	17.98
Montreal.....	3,074,335	9,470,012	4,501,555	25.54	11.94	33.40
New Orleans.....	777,810	16,951,132	237,328	6.46	21.38	1.77
Total.....	612,290	15,643,745	2,454,128	5.08	19.73	18.22
Total.....	12,036,680	79,291,667	13,473,201	100	100	100
New York.....	1903.	1903.	1903.			
Boston.....	4,281,084	9,435,934	22,068,881	31.43	21	28.31
Philadelphia.....	767,044	2,867,994	6,627,107	5.63	6.38	8.50
Baltimore.....	2,664,177	1,600,790	9,994,838	19.56	3.57	12.82
Montreal.....	3,489,618	3,160,614	19,113,566	25.62	7.04	24.52
New Orleans.....	1,045,631	15,871,969	6,811,590	7.67	35.33	8.75
Total.....	1,374,344	11,989,273	13,332,213	10.09	26.68	17.10
Total.....	13,621,898	44,926,574	77,943,185	100	100	100
New York.....	1904.	1904.	1904.			
Boston.....	2,672,766	425,874	9,433,283	36.69	4.20	25.53
Total.....	610,103	156,164	3,693,404	8.38	1.54	10.00

*Exports of flour, wheat and corn from New York, etc.—(Continued).*

	Flour, barrels.	Wheat, bushels.	Corn, bushels.	PERCENTAGE OF TOTAL EXPORTS AT PLACES NAMED.		
				Flour.	Wheat.	Corn.
	1904.	1904.	1904.			
Philadelphia.....	1,256,151	8,000	6,169,968	17.24	0.08	16.69
Baltimore.....	1,281,266	140,262	7,706,237	17.59	1.39	20.84
Montreal.....	840,005	7,507,266	3,721,583	11.53	74.12	10.07
New Orleans.....	624,337	1,891,064	6,233,417	8.57	18.67	16.87
Total.....	7,284,628	10,128,630	36,957,892	100	100	100
	1905.	1905.	1905.			
New York.....	2,550,938	3,666,201	27,283,344	38.43	22.63	31.20
Boston.....	491,418	119,677	10,714,804	7.40	0.76	12.25
Philadelphia.....	1,264,227	640,448	7,647,880	19.04	3.95	8.75
Baltimore.....	1,226,033	1,304,456	15,415,604	18.47	8.05	17.63
Montreal.....	538,307	9,916,687	5,883,842	8.11	61.22	6.73
New Orleans.....	567,398	549,356	20,498,474	8.55	3.39	23.44
Total.....	6,638,321	16,196,825	87,443,948	100	100	100
	1906.	1906.	1906.			
New York.....	3,038,838	14,913,686	20,779,730	33.64	32.67	25.74
Boston.....	735,319	1,983,993	4,174,402	8.13	4.34	5.18

Philadelphia.....	2,011,441	4,749,586	9,408,537	22.27	10.40	11.66
Baltimore.....	1,547,891	4,138,389	24,611,513	17.13	9.06	30.49
New Orleans.....	996,825	5,583,993	17,294,135	11.04	12.23	21.43
Montreal.....	703,211	14,289,551	4,438,283	7.79	31.30	5.50
Total.....	9,033,525	45,659,198	80,706,600	100	100	100
New York.....	1907.	1907.	1907.			
Boston.....	3,045,125	22,769,338	21,253,050	32.09	31.39	32.72
Philadelphia.....	862,004	4,360,382	5,303,997	9.09	6.02	8.17
Baltimore.....	2,421,406	11,295,013	6,855,029	25.52	15.58	10.55
Montreal.....	1,823,407	8,057,570	19,829,427	19.21	11.11	30.52
New Orleans.....	861,936	20,949,496	4,830,251	9.08	28.88	7.44
Total.....	475,655	5,089,669	6,884,482	5.01	7.02	10.60
Total.....	9,489,533	72,521,468	64,956,236	100	100	100
New York.....	1908.	1908.	1908.			
Boston.....	3,410,944	20,578,026	4,686,576	37.35	27.46	20.56
Philadelphia.....	726,632	2,533,460	1,022,338	7.95	3.40	4.46
Baltimore.....	2,299,149	11,731,982	1,626,381	25.18	15.66	7.15
Montreal.....	1,347,098	9,168,368	10,606,954	14.75	12.24	46.53
New Orleans.....	746,073	27,405,034	268,433	8.17	36.59	1.18
Total.....	602,838	3,477,388	4,586,461	6.60	4.65	20.12
Total.....	9,132,734	74,894,258	22,797,143	100	100	100



*Exports of flour, wheat and corn from New York, etc.—(Concluded).*

	Flour, barrels.	Wheat, bushels.	Corn, bushels.	PERCENTAGE OF TOTAL EXPORTS AT PLACES NAMED.		
				Flour.	Wheat.	Corn.
New York.....	1909. 2,991,063	1909. 12,587,537	1909. 4,149,506	36.38	25.97	18.00
Boston.....	461,332	870,339	2,029,923	5.61	1.80	8.80
Philadelphia.....	1,708,721	5,245,290	3,473,940	20.80	10.82	15.05
Baltimore.....	906,169	2,991,527	6,772,959	11.02	6.18	29.35
Montreal.....	1,602,904	25,004,491	424,183	19.49	51.58	1.85
New Orleans.....	550,858	1,773,641	6,225,837	6.70	3.65	26.95
Total.....	8,221,047	48,472,825	23,076,348	100	100	100
New York.....	1910. 2,963,869	1910. 2,449,860	1910. 7,242,901	44.06	8.45	25.42
Boston.....	380,794	721,590	2,719,018	5.66	2.49	9.55
Philadelphia.....	995,687	2,758,039	804,305	14.80	9.51	2.82
Baltimore.....	738,974	2,768,320	7,767,084	10.99	9.53	27.26
Montreal.....	1,074,574	20,089,558	2,751,562	15.97	69.27	9.65
New Orleans.....	572,801	213,687	7,205,151	8.52	0.75	25.30
Total.....	6,726,699	29,001,054	28,490,021	100	100	100

	1911.	1911.	1911.	1911.	1911.	1911.
New York.....	3,587,628	7,343,573	12,634,740	44.06	20.55	26.92
Boston.....	389,252	1,432,599	6,306,561	4.78	4.01	13.43
Philadelphia.....	994,591	3,283,341	5,115,233	12.21	9.13	10.90
Baltimore.....	982,354	5,382,748	11,371,720	12.07	15.06	24.23
Montreal.....	1,509,583	17,718,723	5,720,427	18.54	49.55	12.21
New Orleans.....	679,156	602,417	5,793,673	8.34	1.70	12.31
Total.....	8,142,564	35,763,401	46,942,354	100	100	100

## STATEMENT of lockages during the season of 1911.

DATE.	ERIE CANAL.				
	Lock No. 1.	Lock No. 2.	Lower side cut.	Upper side cut, river lock.	Upper side cut, upper lock.
May.....	18	10	62	344	321
June.....	23	14	123	635	581
July.....	44	53	61	809	750
August.....	31	51	125	843	841
September.....	67	45	55	684	684
October.....	43	47	66	757	757
November.....	21	29	61	366	366
Total.....	247	249	553	4,438	4,300

## Statement of lockages during the season of 1911 — (Continued).

DATE.	ERIE CANAL.				
	Lock No. 3.	Lock No. 45.	Lock No. 46.	Lock No. 49.	Lock No. 50.
May.....	447	296	180	303	317
June.....	502	678	565	733	600
July.....	746	903	984	986	852
August.....	857	1,018	1,146	1,220	1,003
September.....	657	1,010	1,073	1,136	821
October.....	756	927	1,003	881	888
November.....	455	480	494	376	419
Total.....	4,420	5,312	5,445	5,635	4,900

*Statement of lockages during the season of 1911—(Continued).*

DATE.	ERIE CANAL.				
	Lock No. 66.	Combined locks. Lockport.	Tonawanda lock.	Lock No. 72	Junction lock.
May.....	13	160	542	311	30
June.....	538	609	1,209	434	57
July.....	726	665	1,695	490	88
August.....	870	797	1,590	719	52
September.....	740	738	1,417	672	52
October.....	797	776	836	632	71
November.....	367	437	233	306	42
Total.....	4,051	4,182	7,522	3,564	392

*Statement of lockages during the season of 1911—(Continued).*

DATE.	CHAMPLAIN CANAL.			OSWEGO CANAL.	
	Guar. lock.	Ft. Edward lock.	Whitehall lock.	Lock No. 1.	Lock No. 13.
May.....	105	289	267	141	.....
June.....	302	728	752	379	33
July.....	287	785	1,077	589	184
August.....	248	864	1,141	618	235
September.....	273	694	844	419	181
October.....	216	676	851	333	.....
November.....	152	449	478	173	.....
Total.....	1,583	4,485	5,410	2,652	633

*Statement of lockages during the season of 1911—(Concluded).*

DATE.	BLACK RIVER CANAL.	CATUGA AND SENECA CANAL.			Caughdenoy lock, Oneida river im- provement.
	Lock No 1.	Monte- zuma lock.	Waterloo lock.	Mud lock.	
May.....	.....	102	101	143	154
June.....	176	206	151	293	312
July.....	177	299	226	375	393
August.....	260	349	238	428	413
September.....	254	220	187	280	241
October.....	269	203	166	291	209
November.....	98	85	52	117	57
Total.....	1,234	1,464	1,121	1,927	1,779

STATEMENT of the tons of property moved on each and all the canals, comprising the tons of total movement.

YEAR.	Erie.	Champlain.	Oswego.	Cayuga and Seneca.	Chemung.	Crooked Lake.
1837	667,151	261,659	161,353	20,274	20,288	24,258
1838	744,848	266,553	222,697	23,541	30,256	30,336
1839	845,007	263,552	221,300	26,300	36,089	26,823
1840	829,960	245,229	219,627	32,486	34,217	24,026
1841	906,442	276,418	135,689	34,634	63,042	33,030
1842	712,310	230,844	129,498	31,716	54,866	18,660
1843	819,216	262,212	240,571	25,998	66,247	31,856
1844	945,944	269,546	326,607	31,099	88,231	32,589
1845	1,038,700	266,922	340,481	46,464	114,740	39,489
1846	1,264,408	280,480	351,511	61,014	124,768	35,556
1847	1,661,575	313,124	441,096	58,204	189,165	36,318
1848	1,599,965	293,889	490,147	46,252	150,691	34,155
1849	1,622,444	321,345	557,637	40,440	135,867	36,317
1850	1,635,089	460,219	583,346	42,379	128,263	38,797
1851	1,955,265	513,793	676,321	37,084	159,563	29,399
1852	2,159,334	531,001	684,191	47,275	187,577	35,757
1853	2,198,308	608,354	761,276	58,793	249,980	53,985
1854	2,224,008	602,913	611,533	72,995	270,978	25,349
1855	2,202,463	537,108	654,399	76,744	223,271	25,850
1856	2,107,678	611,610	657,381	131,907	245,621	28,559

*Statement of the tons of property moved on each and all the canals, etc.—(Continued).*

YEAR.	Erie.	Champlain.	Oswego.	Cayuga and Seneca.	Chemung.	Crooked Lake.
1857.....	1,566,624	547,236	605,218	120,435	187,201	16,571
1858.....	1,767,004	608,918	688,960	75,968	205,168	16,318
1859.....	1,753,954	751,046	612,390	80,602	256,323	17,933
1860.....	2,253,533	681,157	1,080,076	98,678	226,051	14,723
1861.....	2,500,782	545,930	852,920	100,992	208,792	12,329
1862.....	3,204,277	647,318	1,063,413	125,659	243,628	19,632
1863.....	2,955,302	878,920	992,173	119,704	307,151	11,230
1864.....	2,535,792	846,790	765,079	185,161	280,834	6,316
1865.....	2,523,490	815,311	825,649	192,312	164,796	9,376
1866.....	2,896,027	1,001,493	990,809	368,223	226,510	12,189
1867.....	2,920,578	1,047,440	940,136	389,704	145,627	6,558
1868.....	3,346,986	1,120,585	958,444	515,295	165,875	4,451
1869.....	2,845,072	1,059,339	934,638	533,516	245,761	7,541
1870.....	3,083,132	1,143,719	917,728	527,728	206,535	15,825
1871.....	3,580,922	1,099,995	941,858	445,186	173,281	12,024
1872.....	3,562,560	1,449,528	832,490	386,977	217,263	7,145
1873.....	3,602,535	1,195,390	655,588	437,382	257,962	12,831
1874.....	3,097,122	1,268,292	665,408	378,825	205,602	9,286
1875.....	2,787,226	1,077,746	486,530	224,492	129,425	.....
1876.....	2,418,422	910,151	370,330	137,264	214,448	.....

1877.....	3,254,367	1,021,782	319,327	247,864	12,026	.....
1878.....	3,608,634	1,040,912	257,254	168,201	8,767	.....
1879.....	3,820,027	1,012,005	333,713	117,027	.....	.....
1880.....	4,608,651	1,200,503	427,863	125,331	.....	.....
1881.....	3,598,721	986,079	394,542	99,617	.....	.....
1882.....	3,694,364	1,097,343	445,295	123,448	.....	.....
1883.....	3,587,102	1,366,358	276,350	134,631	.....	.....
1884.....	3,389,555	1,118,073	260,541	119,990	.....	.....
1885.....	3,208,207	1,139,402	213,070	64,125	.....	.....
1886.....	3,808,642	1,119,663	186,484	64,995	.....	.....
1887.....	3,840,513	1,229,335	176,177	195,933	.....	.....
1888.....	3,321,516	1,198,305	134,078	201,237	.....	.....
1889.....	3,673,554	1,187,038	170,078	196,138	.....	.....
1890.....	3,303,929	1,520,757	225,936	63,419	.....	.....
1891.....	3,097,853	1,101,126	161,426	80,954	.....	.....
1892.....	2,978,832	1,021,139	90,886	75,669	.....	.....
1893.....	3,235,726	848,965	92,634	38,761	.....	.....
1894.....	3,144,144	550,279	98,843	33,270	.....	.....
1895.....	2,356,084	966,335	64,154	49,050	.....	.....
1896.....	2,742,438	802,519	57,245	54,739	.....	.....
1897.....	2,584,906	797,637	53,537	110,277	.....	.....
1898.....	2,338,020	804,076	47,662	100,342	.....	.....
1899.....	2,419,084	1,034,315	49,373	113,476	.....	.....
1900.....	2,145,876	972,867	31,742	130,126	.....	.....
1901.....	2,257,035	885,641	43,210	166,258	.....	.....
1902.....	2,105,876	766,615	143,707	155,152	.....	.....



*Statement of the tons of property moved on each and all the canals, etc.— (Concluded).*

YEAR.	Erie.	Champlain.	Oswego.	Cayuga and Seneca.	Chemung.	Crooked Lake.
1903.....	2,414,018	801,649	184,434	116,918	.....	.....
1904.....	1,945,708	796,468	170,342	140,656	.....	.....
1905.....	1,999,824	833,550	178,777	123,927	.....	.....
1906.....	2,385,491	740,983	172,228	164,874	.....	.....
1907.....	2,415,548	678,506	143,277	112,570	.....	.....
1908.....	2,177,443	614,762	92,831	81,029	.....	.....
1909.....	2,031,307	732,125	121,717	84,957	.....	.....
1910.....	2,023,185	684,027	110,079	80,125	.....	.....
1911.....	2,031,735	770,668	113,891	98,854	.....	.....

*Statement of the tons of property moved on each and all the canals, etc.—(Continued).*

YEAR.	Chenango.	Genesee Valley.	Black River.	Oneida Lake.	Baldwinsville.	Total.
1837.....	8,213	.....	.....	.....	.....	1,171,296
1838.....	14,778	.....	.....	.....	.....	1,333,011
1839.....	16,928	.....	.....	.....	.....	1,435,713
1840.....	16,848	13,653	.....	.....	.....	1,416,046
1841.....	23,356	26,892	.....	22,150	.....	1,521,681
1842.....	17,177	41,860	.....	.....	.....	1,236,931
1843.....	19,026	48,313	.....	26,445	.....	1,513,439
1844.....	31,472	65,077	.....	25,991	.....	1,816,586
1845.....	38,305	73,546	.....	28,808	.....	1,977,565
1846.....	41,112	87,614	.....	22,188	.....	2,268,662
1847.....	44,051	95,632	.....	30,642	.....	2,849,810
1848.....	35,207	98,467	.....	47,451	.....	2,796,230
1849.....	36,557	84,674	.....	59,451	.....	2,794,732
1850.....	41,892	89,804	.....	56,828	.....	3,076,617
1851.....	40,307	100,000	25,320	45,049	.....	3,582,733
1852.....	44,939	122,901	36,597	43,969	.....	3,863,441
1853.....	76,538	157,164	41,924	43,351	.....	4,247,853
1854.....	77,124	158,942	55,525	34,532	31,945	4,165,862
1855.....	89,390	102,321	51,347	27,116	32,608	4,022,617
1856.....	105,502	113,731	68,126	18,485	27,481	4,116,082
1857.....	96,722	114,576	69,135	19,343	.....	3,344,061
1858.....	72,526	118,303	62,353	19,675	.....	3,665,192

*Statement of the tons of property moved on each and all of the canals, etc.— (Continued).*

YEAR.	Chenango.	Genesee Valley.	Black River.	Oneida Lake.	Baldwinsville.	Total.
1859.....	89,691	124,263	75,946	19,536	.....	3,981,648
1860.....	83,635	123,602	70,687	18,672	.....	4,650,214
1861.....	91,661	94,329	69,930	30,060	.....	4,707,635
1862.....	79,442	129,974	85,442	.....	.....	5,598,785
1863.....	90,215	112,549	90,448	.....	.....	5,557,692
1864.....	89,021	71,411	72,519	.....	.....	4,852,941
1865.....	68,822	56,581	73,317	.....	.....	4,729,654
1866.....	107,472	86,579	85,908	.....	.....	5,775,220
1867.....	103,064	64,679	70,539	.....	.....	5,688,325
1868.....	112,455	138,364	79,770	.....	.....	6,442,225
1869.....	83,527	69,141	80,550	.....	.....	5,859,080
1870.....	102,820	79,733	96,329	.....	.....	6,173,769
1871.....	39,793	85,269	89,560	.....	.....	6,467,888
1872.....	26,519	96,113	94,776	.....	.....	6,673,370
1873.....	30,317	86,770	86,017	.....	.....	6,364,782
1874.....	33,059	69,393	77,601	.....	.....	5,804,588
1875.....	23,769	64,677	65,993	.....	.....	4,859,858
1876.....	6,227	47,360	67,927	.....	.....	4,172,129
1877.....	.....	37,311	63,286	.....	.....	4,955,963
1878.....	.....	18,569	68,983	.....	.....	5,171,320

1879.....	79,600	.....	.....	5,362,372
1880.....	75,308	.....	.....	6,457,656
1881.....	100,233	.....	.....	5,179,192
1882.....	106,933	.....	.....	5,467,423
1883.....	128,656	.....	.....	5,664,056
1884.....	116,359	.....	.....	5,009,488
1885.....	106,971	.....	.....	4,731,784
1886.....	114,198	.....	.....	5,293,982
1887.....	111,847	.....	.....	5,553,805
1888.....	118,213	.....	.....	4,942,948
1889.....	143,561	.....	.....	5,370,369
1890.....	132,061	.....	.....	5,246,102
1891.....	122,111	.....	.....	4,563,472
1892.....	115,469	.....	.....	4,231,995
1893.....	115,877	.....	.....	4,331,963
1894.....	56,024	.....	.....	3,882,560
1895.....	64,691	.....	.....	3,500,314
1896.....	57,953	.....	.....	3,714,894
1897.....	71,447	.....	.....	3,617,894
1898.....	69,963	.....	.....	3,360,083
1899.....	69,803	.....	.....	3,686,051
1900.....	65,330	.....	.....	3,345,941
1901.....	68,469	.....	.....	3,420,613
1902.....	103,260	.....	.....	3,274,610
1903.....	98,366	.....	.....	3,615,385

*Statement of the tons of property moved on each of all the canals, etc.— (Concluded).*

YEAR.	Chenango.	Genesee Valley.	Black River.	Oneida Lake.	Baldwinsville.	Total.
1904.	.....	.....	85,373	.....	.....	3,138,547
1905.	.....	.....	90,818	.....	.....	3,226,896
1906.	.....	.....	77,331	.....	.....	3,540,907
1907.	.....	.....	58,013	.....	.....	3,407,914
1908.	.....	.....	85,812	.....	.....	3,051,877
1909.	.....	.....	146,430	.....	.....	3,116,536
1910.	.....	.....	175,996	.....	.....	3,073,412
1911.	.....	.....	81,920	.....	.....	3,097,068

*Total value of articles moved on all the canals from 1837 to 1911, both years inclusive.*

YEAR.	Product of the forest.	Agriculture.	Manufactures.	Merchandise.	Other articles.	Total.
1837	\$6,146,716	\$16,201,331	\$6,390,486	\$23,935,990	\$3,134,766	\$55,806,288
1838	6,338,063	19,390,714	5,915,856	31,594,692	2,507,234	65,764,559
1839	7,762,553	17,056,911	5,989,576	39,493,764	3,096,960	73,399,764
1840 (G. Val. canal opened)	4,609,035	19,644,481	4,719,054	35,636,943	2,694,379	66,303,892
1841	11,841,103	21,901,713	5,422,615	50,134,320	2,993,178	92,202,929
1842	5,957,219	16,987,843	4,435,289	30,042,153	2,594,104	60,016,608
1843	6,653,080	20,588,118	4,925,545	40,651,798	3,458,386	76,276,909
1844	7,422,737	23,379,643	6,151,806	49,224,099	4,472,867	90,021,152
1845	6,472,237	25,479,488	6,994,932	52,542,336	5,140,866	100,629,859
1846	6,422,409	35,820,586	7,015,311	62,004,488	4,349,315	115,612,100
1847	7,546,063	55,757,166	8,072,059	74,753,638	5,434,502	151,563,428
1848	7,219,350	42,850,086	7,433,957	76,945,463	5,637,301	140,086,157
1849	8,671,057	46,408,092	7,183,930	77,094,282	5,374,924	144,732,285
1850	15,117,661	46,152,958	7,933,108	81,135,199	6,059,003	156,397,929
1851	12,549,754	43,277,458	8,255,575	88,531,320	7,367,694	159,981,801
1852	11,526,636	49,437,555	6,294,120	122,624,170	6,721,236	196,603,517
1853	14,001,506	57,482,815	8,091,100	118,317,856	9,286,293	207,179,570
1854	14,384,785	51,980,864	9,796,420	123,367,863	10,954,380	210,284,312
1855	10,545,615	58,222,314	10,467,559	113,572,523	11,582,136	204,390,147
1856	10,211,383	51,030,453	10,308,419	135,691,816	11,084,991	218,327,062

*Total value of articles moved on all the canals from 1837 to 1911, etc.— (Continued).*

YEAR.	Product of the forest.	Agriculture.	Manufactures.	Merchandise.	Other articles.	Total.
1857.	\$9,827,410	\$30,955,369	\$2,330,067	\$74,633,905	\$12,250,267	\$136,997,018
1858.	8,983,443	50,142,318	9,352,955	61,236,319	8,873,809	138,568,844
1859.	10,798,769	34,044,601	8,757,059	65,072,972	13,487,357	132,160,758
1860.	10,654,710	55,838,977	8,113,177	84,252,425	11,989,909	170,849,198
1861.	6,462,614	37,861,720	6,718,273	49,707,729	9,365,557	130,115,893
1862.	11,305,954	84,239,870	12,314,651	83,640,903	11,733,453	203,234,331
1863.	13,421,909	101,090,511	13,044,051	91,417,513	21,072,477	240,046,461
1864.	22,589,060	116,051,564	22,582,718	80,391,550	32,785,747	274,400,639
1865.	21,011,122	83,670,467	18,095,266	102,627,877	30,832,372	256,237,104
1866.	28,754,821	86,610,934	18,389,992	100,169,211	37,038,718	270,963,676
1867.	28,907,470	81,616,663	16,877,334	108,545,569	42,939,676	278,956,712
1868.	24,089,591	76,383,656	17,298,574	131,786,764	55,793,344	305,301,920
1869.	21,960,655	55,528,825	13,595,892	103,464,505	54,761,407	249,281,284
1870.	22,266,184	40,231,912	10,777,897	94,852,911	54,707,269	231,836,176
1871.	27,309,303	68,130,282	10,881,540	78,898,185	53,548,381	238,767,691
1872.	35,599,734	49,541,259	7,659,547	93,997,415	34,115,366	220,913,321
1873.	18,651,838	60,194,909	5,979,656	76,173,336	30,715,761	191,715,500
1874.	17,840,356	64,344,898	7,094,531	64,477,540	42,916,997	196,674,322
1875.	12,478,669	50,540,911	6,311,137	40,885,448	34,792,410	145,008,575
1876.	11,132,966	32,439,857	3,375,119	31,069,375	35,073,062	113,090,379
1877.	15,574,893	46,765,635	10,911,786	46,130,795	21,028,903	139,411,963

1878	\$12,703,074	\$52,264,813	\$17,834,755	\$70,433,563	\$29,021,323	\$182,254,528
1879	12,053,499	56,826,653	37,173,222	144,653,500	34,573,762	285,280,726
1880	14,351,622	68,994,219	14,236,227	109,870,264	40,392,459	247,844,790
1881	18,399,932	43,440,343	11,863,021	75,331,308	13,148,961	162,153,565
1882	20,285,512	42,766,687	4,673,440	61,769,417	18,428,851	147,918,907
1883	18,038,056	39,727,973	3,426,474	68,281,320	18,387,400	147,861,223
1884	27,588,279	37,335,779	3,125,433	78,864,806	15,182,754	162,007,069
1885	17,302,705	31,404,325	2,827,280	58,215,252	9,786,627	119,536,389
1886	16,471,406	41,191,562	3,310,422	103,749,354	15,339,102	190,061,846
1887	15,568,667	42,729,624	4,808,178	82,161,364	13,978,084	159,245,977
1888	14,899,643	33,546,141	3,207,881	56,913,813	13,957,257	122,524,735
1889	17,012,190	30,014,906	5,908,500	80,590,288	21,058,338	154,584,222
1890	21,888,280	32,680,782	1,879,276	73,838,260	15,464,488	145,617,086
1891	17,923,469	38,566,171	1,147,639	47,008,705	11,623,269	116,269,343
1892	18,571,008	35,127,543	1,491,611	100,701,774	11,705,012	167,596,948
1893	14,421,877	50,483,054	853,407	75,474,765	13,597,991	154,831,094
1894	12,706,519	35,849,109	933,886	78,405,074	13,284,972	141,179,560
1895	14,504,441	17,185,539	2,489,514	38,648,131	24,625,396	97,453,021
1896	11,838,186	27,268,642	2,494,727	37,512,064	20,925,959	100,039,578
1897	11,780,232	16,722,091	1,932,216	42,299,589	23,329,210	96,063,338
1898	11,489,502	15,005,458	1,369,262	36,386,337	23,781,795	88,122,354
1899	14,312,288	13,428,551	1,555,810	40,752,834	22,737,229	92,786,712
1900	9,161,366	11,051,632	2,073,468	42,819,110	19,018,196	84,123,772
1901	10,697,001	15,036,822	1,773,198	37,467,681	18,504,178	83,478,880
1902	9,546,375	15,546,609	1,687,462	34,857,640	20,070,367	81,708,543
1903	9,726,311 <sup>a</sup>	15,812,570	1,835,315	34,613,801	15,725,328	77,713,325



*Total value of articles moved on all the canals from 1837 to 1911, etc.—(Concluded).*

YEAR.	Product of the forest.	Agriculture.	Manufactures.	Merchandise.	Other articles.	Total.
1904.....	\$9,255,116	\$13,791,790	\$1,515,628	\$27,205,160	\$14,614,123	\$66,381,817
1905.....	11,640,382	13,875,972	1,589,118	19,292,625	11,520,489	57,918,586
1906.....	12,639,416	17,743,782	1,903,347	23,531,901	10,682,971	66,501,417
1907.....	11,032,348	22,069,011	1,146,417	19,957,084	9,699,110	63,903,970
1908.....	7,905,428	15,641,072	1,403,612	19,415,235	10,146,162	54,511,509
1909.....	9,027,781	13,902,062	2,665,622	22,405,574	11,080,533	59,081,572
1910.....	9,373,099	15,068,375	2,161,199	25,132,370	7,307,135	59,042,178
1911.....	9,471,169	12,874,402	1,806,938	17,044,496	8,380,624	49,577,629

STATEMENT of total movement of flour, meal and grain on all the canals from 1861 to 1911, both inclusive.

YEAR.	Barrels wheat flour.	Barrels corn meal.	Bushels wheat.	Bushels corn.	Bushels oats.
1861.....	1,667,416	2,176	33,171,900	25,024,643	6,105,313
1862.....	2,102,574	18,416	37,579,967	27,225,643	6,550,187
1863.....	1,930,731	44,704	26,577,166	222,087,056	16,040,937
1864.....	1,474,582	51,305	19,932,067	11,086,536	15,122,937
1865.....	1,271,129	24,018	14,433,566	20,689,500	11,973,939
1866.....	751,870	27,972	10,989,800	28,904,143	12,138,250
1867.....	569,234	12,808	13,630,300	17,930,500	10,476,000
1868.....	575,900	14,861	14,425,567	18,437,100	11,927,250
1869.....	657,807	12,666	22,351,133	9,159,643	5,769,312
1870.....	509,055	22,250	21,950,800	6,893,893	7,371,312
1871.....	381,583	6,611	23,951,633	24,002,033	8,118,187
1872.....	190,129	6,046	13,463,433	32,241,179	5,809,938
1873.....	181,731	9,342	26,768,800	22,760,571	4,376,437
1874.....	269,759	8,314	25,738,766	18,542,964	3,713,000
1875.....	163,287	3,000	24,809,766	10,072,536	3,919,813
1876.....	86,019	2,232	13,879,200	13,044,786	3,259,188
1877.....	82,621	3,120	14,934,766	25,837,786	4,127,812
1878.....	54,666	5,666	28,151,866	26,249,750	5,314,313
1879.....	66,333	8,130	31,648,866	22,185,000	1,447,750
1880.....	76,537	12,620	32,201,733	41,307,821	1,305,812
1881.....	64,129	13,370	14,827,733	16,993,679	1,895,063

*Statement of total movement of flour, meal and grain on all the canals, etc.—(Continued).*

YEAR.	Barrels wheat flour.	Barrels corn meal.	Bushels wheat.	Bushels corn.	Bushels oats.
1882	86,777	17,370	21,407,196	8,988,821	1,386,250
1883	83,768	1,777	19,124,666	18,677,785	3,225,438
1884	67,138	343	26,346,966	7,079,143	3,293,500
1885	63,602	703	18,864,066	12,866,500	514,625
1886	83,296	5,435	33,270,966	12,670,178	454,875
1887	37,861	65	31,228,000	15,950,607	2,210,312
1888	30,463	2,629	19,373,366	17,846,464	4,445,562
1889	40,555	1,713	16,137,900	21,162,536	3,980,000
1890	32,046	10,740	11,789,700	21,998,000	2,961,437
1891	28,900	.....	25,203,366	5,076,464	1,022,625
1892	45,176	38,000	20,690,933	5,366,750	4,527,750
1893	22,574	1,222	36,446,600	8,912,965	1,498,375
1894	27,047	978	30,116,266	9,942,035	6,302,937
1895	20,333	74	3,345,500	3,495,857	5,892,437
1896	73,741	3,639	13,629,033	3,641,821	12,357,187
1897	29,685	1,481	6,001,166	11,170,572	3,146,562
1898	17,166	435	2,332,866	13,008,857	4,765,250
1899	11,546	287	9,414,066	3,309,643	5,858,312
1900	10,866	818	4,610,083	6,751,670	2,277,258

1901.....	6,926	331	7,165,140	3,121,192	5,533,000
1902.....	12,302	1,085	9,731,281	1,178,650	2,792,447
1903.....	9,954	602	4,794,400	6,833,964	3,895,375
1904.....	12,009	990	3,375,334	2,442,178	5,176,500
1905.....	2,130	870	3,669,500	936,536	5,902,312
1906.....	2,778	92	6,355,434	4,800,464	6,545,375
1907.....	1,657	74	8,392,567	3,200,821	4,000,062
1908.....	157	.....	6,122,200	2,525,036	3,813,190
1909.....	805	.....	6,395,134	2,837,821	4,972,687
1910.....	129	.....	5,974,967	4,399,607	5,275,500
1911.....	269	.....	4,792,500	2,535,857	3,888,500

*Statement of total movement of flour, meal and grain on all the canals, etc.*

YEAR.	Bushels barley.	Bushels rye.	Bushels peas and beans.	Bushels malt.	Aggregate in tons.
1861.....	2,444,083	976,000	347,233	.....	2,070,251
1862.....	2,764,916	967,750	375,433	280,182	2,332,928
1863.....	3,816,458	592,571	530,700	366,242	2,021,505
1864.....	3,232,292	670,168	550,000	565,294	1,437,598
1865.....	5,336,416	1,220,714	401,533	725,151	1,530,037
1866.....	7,867,041	1,751,928	536,667	298,212	1,680,169
1867.....	4,972,250	1,044,643	827,133	489,818	1,322,774
1868.....	3,698,083	873,357	391,667	257,029	1,350,090
1869.....	4,125,500	481,750	379,233	330,400	1,221,397
1870.....	5,132,958	697,143	226,123	698,686	1,189,267
1871.....	4,749,662	1,234,392	162,700	801,371	1,759,882
1872.....	5,002,543	477,036	146,600	1,578,914	1,586,249
1873.....	2,941,083	1,077,143	393,300	1,182,466	1,660,981
1874.....	4,110,584	293,393	200,567	453,200	1,500,490
1875.....	4,353,125	296,750	195,200	71,287	1,238,115
1876.....	4,020,584	712,464	174,200	1,510,629	991,197
1877.....	5,810,542	1,283,857	162,533	718,800	1,439,665
1878.....	3,730,583	2,307,607	167,100	1,031,000	1,846,742
1879.....	4,006,000	2,114,643	124,466	582,706	1,770,846

1880	4,426,958	940,714	149,369	820,824	2,304,219
1881	3,399,458	553,000	101,334	887,526	1,074,545
1882	4,027,083	1,549,000	206,834	846,824	1,087,953
1883	2,449,291	3,401,643	43,666	952,706	1,329,099
1884	2,708,666	2,552,214	185,735	707,235	1,198,346
1885	2,691,135	364,678	70,000	604,706	1,028,260
1886	2,619,916	108,750	151,366	901,941	1,446,973
1887	3,144,083	239,892	14,133	781,588	1,498,304
1888	873,208	438,143	64,000	940,176	1,116,733
1889	2,754,541	1,289,357	694,333	1,640,588	1,277,118
1890	3,268,321	800,500	66,833	1,201,058	1,158,029
1891	2,995,958	2,456,107	87,996	662,325	1,072,375
1892	2,149,833	151,285	20,633	816,650	992,798
1893	2,207,250	232,785	42,933	309,118	1,435,540
1894	3,720,625	18,946	33,366	388,058	1,388,859
1895	3,255,458	7,322	15,766	166,000	583,754
1896	4,581,917	2,757,500	12,500	682,764	916,072
1897	4,180,708	2,370,964	10,733	1,037,941	731,213
1898	3,746,083	276,607	4,100	1,565,941	636,774
1899	3,276,125	211,821	800	473,823	562,740
1900	2,633,480	374,224	154	533,636	447,768
1901	2,311,597	368,796	1,334	471,050	465,426
1902	3,138,100	660,817	335	645,600	475,863
1903	2,993,208	429,536	1,767	731,706	495,005
1904	3,692,750	84,321	34	125,559	346,991

*Statement of total movement of flour, meal and grain on all the canals, etc.—(Concluded).*

YEAR.	Bushels barley.	Bushels rye.	Bushels peas and beans.	Bushels malt.	Aggregate in tons.
1905.	4,035,292	132,750	567	362,648	337,815
1906.	5,020,708	142,571	5,900	418,706	561,896
1907.	3,837,583	76,950	267	817,706	513,754
1908.	2,000,292	75,428	25,500	708,176	378,318
1909.	2,103,166	217,893	23,700	698,471	420,125
1910.	1,851,625	85,000	900	869,118	448,481
1911.	835,708	89,892	9,734	858,000	314,476

## STATEMENT of foreign exports of flour and grain from New York from 1861 to 1911.

YEAR	Barrels wheat flour.	Barrels rye flour.	Barrels corn meal.	Bushels wheat.	Bushels corn.	Bushels oats.
1861.	3,110,646	11,807	108,385	28,889,914	12,456,265	160,875
1862.	2,961,518	8,397	132,606	25,564,755	12,020,848	210,669
1863.	2,527,338	5,461	140,561	15,424,889	7,533,431	125,566
1864.	1,918,393	2,840	105,142	12,193,433	846,831	42,135
1865.	1,402,144	2,673	127,600	2,527,626	2,549,670	94,567
1866.	900,084	7,552	149,773	522,669	11,079,394	1,190,583
1867.	871,089	11,754	151,669	4,468,774	8,147,813	144,665
1868.	1,003,968	7,459	191,011	5,762,037	5,989,225	94,707
1869.	1,584,211	5,283	137,627	18,240,586	1,637,586	49,393
1870.	1,950,234	.....	.....	18,446,035	487,792	28,986
1871.	1,660,400	4,200	123,500	21,968,600	13,040,600	47,300
1872.	1,216,082	6,399	194,040	13,144,400	25,292,200	31,739
1873.	1,655,331	8,249	176,756	27,801,800	15,587,500	49,700
1874.	1,177,608	8,473	168,603	34,791,249	19,000,995	122,528
1875.	1,954,100	5,700	173,400	26,192,700	12,938,700	138,800
1876.	1,887,441	5,778	172,042	24,144,033	16,610,232	620,536
1877.	1,537,106	7,799	220,939	21,355,774	25,373,942	257,634
1878.	2,630,437	4,375	202,788	55,019,389	27,440,771	3,658,905
1879.	3,684,366	6,049	150,178	61,538,861	35,319,789	521,406



## STATEMENT of foreign exports of flour and grain from New York from 1861 to 1911 — (Concluded).

YEAR.	Barrels wheat flour.	Barrels rye flour.	Barrels corn meal.	Bushels wheat.	Bushels corn.	Bushels oats.
1880.....	4,215,415	5,205	203,716	61,908,029	49,875,430	427,959
1881.....	4,440,114	3,264	196,985	41,788,182	31,731,995	431,426
1882.....	4,623,965	.....	112,316	37,620,153	9,012,373	170,586
1883.....	4,330,146	.....	.....	20,049,200	22,222,754	162,665
1884.....	3,907,021	.....	530	28,687,362	11,862,158	2,456,219
1885.....	3,763,029	3,863	152,488	16,286,800	26,259,228	6,198,302
1886, not reported.	.....	.....	.....	.....	.....	.....
1887, to December 1.....	3,731,523	.....	105,735	40,893,437	11,920,425	142,938
1888, to December 1.....	3,476,991	.....	107,589	12,224,374	12,101,098	112,069
1889, to December 1.....	3,056,855	.....	135,006	9,627,444	27,380,443	885,257
1890.....	3,417,399	.....	136,432	12,549,946	24,550,165	9,301,046
1891.....	3,798,076	.....	160,533	46,514,096	12,819,911	3,205,466
1892.....	6,034,260	.....	163,765	45,259,966	18,293,353	2,650,639
1893.....	6,032,903	114	159,149	38,017,932	12,802,039	5,177,007
1894, to December 1.....	5,814,657	.....	178,346	21,612,790	10,329,787	219,844
1895, to December 1.....	4,009,157	.....	144,631	18,348,193	17,891,140	1,302,900
1896, to December 1.....	4,264,302	.....	140,449	16,864,330	16,845,658	14,794,568
1897.....	4,699,767	.....	272,975	25,085,896	33,206,509	34,714,008
1898.....	4,738,214	.....	366,663	49,909,158	39,632,273	23,765,046

1899	4,741,035	.....	407,691	26,830,386	40,429,477	12,943,153
1900	4,487,306	.....	444,943	18,259,428	43,532,024	8,819,441
1901	4,092,711	.....	317,920	27,140,388	23,831,380	8,457,228
1902	4,149,129	.....	187,004	19,955,526	3,052,715	1,803,663
1903	4,281,084	.....	439,174	9,435,934	22,063,881	669,423
1904	2,672,766	.....	250,204	425,874	9,433,283	269,670
1905	2,550,938	.....	277,154	3,666,201	27,283,344	6,489,616
1906	3,038,838	.....	205,203	14,913,686	20,779,730	5,218,147
1907	3,045,125	.....	197,047	22,769,338	21,253,050	280,751
1908	3,410,944	.....	173,934	20,578,026	4,686,576	145,341
1909	2,991,063	.....	136,187	12,587,537	4,149,506	305,355
1910	2,963,869	.....	179,692	2,449,860	7,242,901	283,675
1911	3,587,628	.....	201,030	7,343,573	12,634,740	464,810

*Statement of foreign exports of flour and grain, etc.*

YEAR.	Bushels barley.	Bushels rye.	Bushels peas and beans.	Bushels malt.	Aggregate in tons.
1861.	3,927	1,000,405	139,284	.....	1,599,261
1862.	42,061	1,104,549	113,819	.....	1,477,221
1863.	52,439	416,369	110,911	.....	980,675
1864.	150	588	186,154	.....	614,642
1865.	.....	198,348	88,899	.....	322,451
1866.	1,329,842	248,646	282,992	.....	506,520
1867.	886,893	473,260	680,763	.....	531,204
1868.	90	152,993	189,226	.....	481,902
1869.	.....	142,542	123,156	.....	788,075
1870.	.....	92,431	151,102	.....	785,249
1871.	98,700	525,800	90,900	.....	1,238,053
1872.	22,066	668,030	156,609	.....	1,378,412
1873.	19,400	1,069,100	143,500	.....	1,504,771
1874.	3,560	641,661	463,193	.....	1,863,297
1875.	1,500	206,900	364,900	.....	1,405,544
1876.	88,097	1,336,283	716,428	.....	1,483,402
1877.	2,412,509	2,049,796	487,031	.....	1,675,902
1878.	1,518,922	4,048,841	476,184	.....	2,949,042
1879.	147,867	3,941,638	393,153	.....	3,383,953

1880.....	254,833	2,181,183	654,669	.....	3,825,168
1881.....	15,477	1,068,928	218,370	.....	2,687,356
1882.....	6,616	1,980,586	572,567	.....	1,967,989
1883.....	8,939	4,467,853	.....	.....	1,819,284
1884.....	76,343	4,846,088	770,729	.....	1,413,686
1885.....	408	493,319	.....	.....	1,759,840
1886, not reported.....	.....	.....	.....	.....	.....
1887, to December 1.....	46,189	356,817	185,877	.....	2,193,962
1888, to December 1.....	48	6,237	182,511	.....	1,098,641
1889, to December 1.....	226	809,405	244,246	.....	1,440,719
1890.....	275,313	1,351,726	371,814	.....	1,652,144
1891.....	1,869,569	4,448,675	668,069	.....	2,421,816
1892.....	235,206	3,254,849	663,927	.....	2,698,507
1893.....	257,744	439,459	473,796	.....	2,282,685
1894, to December 1.....	300	208	.....	.....	1,581,391
1895, to December 1.....	42,743	246	.....	.....	1,521,886
1896, to December 1.....	6,162,012	3,208,448	.....	.....	2,027,759
1897.....	8,916,452	5,797,517	.....	.....	3,151,164
1898.....	2,451,271	8,307,944	1,151,811	.....	3,864,551
1899.....	7,619,862	2,745,970	.....	.....	2,960,070
1900.....	4,833,493	1,479,380	.....	.....	3,597,900
1901.....	233,907	1,050,006	.....	.....	2,128,169
1902.....	341,072	2,316,417	327,502	.....	1,264,173
1903.....	308,616	1,310,550	321,243	.....	1,475,104
1904.....	2,066,155	143	301,340	.....	655,536

*Statement of foreign exports of flour and grain, etc.—(Concluded).*

YEAR.	Bushels barley.	Bushels rye.	Bushels peas and beans.	Bushels malt.	Aggregate in tons.
1905.	5,304,708	271,010	238,734	.....	1,426,751
1906.	4,310,610	472,489	207,783	.....	1,586,006
1907.	133,580	1,128,070	137,588	.....	1,651,730
1908.	141,591	1,227,843	277,540	.....	1,182,657
1909.	238,567	187,496	104,593	.....	850,554
1910.	16,984	16,765	.....	.....	621,218
1911.	156	95	.....	.....	990,700

*Total tonnage of all the property on the canals, ascending and descending, and the value for the seventy-five years preceding, is as follows:*

YEAR.	Tons.	Value.
1837.....	1,171,296	\$55,809,288
1838.....	1,333,011	65,746,559
1839.....	1,435,713	73,399,764
1840.....	1,416,046	66,303,892
1841.....	1,521,661	92,202,929
1842.....	1,236,931	60,016,608
1843.....	1,513,439	76,276,909
1844.....	1,816,586	90,921,152
1845.....	1,977,565	100,629,859
1846.....	2,268,662	115,612,109
1847.....	2,869,810	151,563,428
1848.....	2,796,230	140,086,157
1849.....	2,894,732	144,732,285
1850.....	3,076,617	156,397,929
1851.....	2,582,733	159,981,801
1852.....	3,863,441	196,603,517
1853.....	4,247,853	207,179,570
1854.....	4,165,862	210,284,312
1855.....	4,022,617	204,390,147
1856.....	4,116,082	218,327,062
1857.....	3,344,061	136,997,018
1858.....	3,665,192	138,568,844
1859.....	3,781,684	132,160,758
1860.....	4,650,214	170,849,198
1861.....	4,507,655	130,115,893
1862.....	5,598,785	203,234,331
1863.....	5,557,692	240,046,461
1864.....	4,852,941	274,400,639
1865.....	4,729,651	256,237,104
1866.....	5,775,220	270,963,676
1867.....	5,688,325	278,956,712
1868.....	6,442,225	305,301,929
1869.....	5,859,080	249,281,284
1870.....	6,173,769	231,836,176
1871.....	6,467,888	238,767,691
1872.....	6,673,370	220,913,321
1873.....	6,364,782	191,715,500

*Total tonnage of all property on the canals, etc. — (Concluded).*

YEAR	Tons.	Value.
1874.....	5,804,588	\$196,674,322
1875.....	4,859,958	145,008,575
1876.....	4,172,129	113,090,379
1877.....	4,955,963	128,923,890
1878.....	5,171,320	182,254,528
1879.....	5,362,372	285,280,726
1880.....	6,467,656	247,844,790
1881.....	5,179,192	162,153,565
1882.....	5,467,423	147,918,907
1883.....	5,664,056	147,861,223
1884.....	5,009,488	162,097,069
1885.....	4,731,784	119,536,189
1886.....	5,293,982	180,061,846
1887.....	5,553,805	159,245,977
1888.....	4,942,948	122,524,735
1889.....	5,370,369	154,584,222
1890.....	5,246,102	145,761,086
1891.....	4,563,472	116,269,343
1892.....	4,281,995	167,596,948
1893.....	4,331,963	154,831,094
1894.....	3,882,560	141,179,560
1895.....	3,500,314	97,453,021
1896.....	3,714,894	100,039,578
1897.....	3,617,804	96,063,338
1898.....	3,360,063	88,122,354
1899.....	3,686,051	92,786,712
1900.....	3,345,941	84,123,772
1901.....	3,420,613	83,478,880
1902.....	3,274,610	81,708,453
1903.....	3,615,385	77,713,325
1904.....	3,138,547	66,381,817
1905.....	3,226,896	57,918,586
1906.....	3,540,907	66,501,417
1907.....	3,407,914	63,903,970
1908.....	3,051,877	54,511,509
1909.....	3,116,536	59,081,572
1910.....	3,073,412	59,042,178
1911.....	3,097,068	49,577,629

TOTAL GRAIN *received at Buffalo each year since 1836, and total grain, including flour, received each year.*

YEAR.	Grain, bushels.	Grain including flour, bushels.
1836.....	543,461	1,239,351
1837.....	550,560	1,184,685
1838.....	974,751	2,302,887
1839.....	1,117,262	2,302,851
1840.....	1,075,885	4,061,598
1841.....	1,852,325	5,692,525
1842.....	2,015,928	5,687,468
1843.....	2,055,025	6,642,610
1844.....	2,335,568	6,910,719
1845.....	1,848,040	5,581,790
1846.....	6,491,522	13,366,167
1847.....	8,688,187	19,153,187
1848.....	7,396,012	14,641,018
1849.....	8,628,013	14,665,189
1850.....	6,618,004	12,059,551
1851.....	11,449,661	17,740,784
1852.....	13,392,937	20,390,500
1853.....	11,078,741	15,956,525
1854.....	18,553,455	22,252,288
1855.....	10,788,473	24,472,277
1856.....	20,123,667	25,753,965
1857.....	15,348,930	19,578,690
1858.....	20,202,444	26,812,982
1859.....	14,429,069	21,530,722
1860.....	31,441,440	37,073,115
1861.....	50,062,646	61,460,601
1862.....	58,642,344	72,872,454
1863.....	49,845,065	64,735,510
1864.....	41,044,498	51,177,146
1865.....	42,473,223	51,415,188
1866.....	51,820,342	57,388,087
1867.....	43,499,780	59,700,060
1868.....	42,436,201	49,949,856
1869.....	37,014,728	45,007,163
1870.....	39,261,141	46,013,096
1871.....	60,765,457	67,155,742
1872.....	58,447,822	62,260,232
1873.....	67,340,570	73,636,595
1874.....	61,562,627	70,030,552



*Total grain received at Buffalo each year, etc.— (Concluded).*

YEAR.	Grain, bushels.	Grain including flour, bushels.
1875.....	65,194,716	74,246,726
1876.....	46,038,598	50,074,648
1877.....	61,734,071	66,199,291
1878.....	79,176,152	84,046,052
1879.....	74,379,829	78,865,354
1880.....	105,453,372	112,042,927
1881.....	56,806,545	62,062,895
1882.....	50,833,590	56,830,340
1883.....	65,722,080	76,079,930
1884.....	56,963,970	70,041,520
1885.....	49,740,060	64,260,460
1886.....	72,514,840	95,425,790
1887.....	84,730,910	104,737,710
1888.....	73,223,500	99,448,150
1889.....	90,869,880	118,273,430
1890.....	89,312,800	120,540,700
1891.....	128,993,020	164,459,720
1892.....	133,039,090	181,769,690
1893.....	135,919,920	188,730,370
1894.....	103,959,165	161,401,815
1895.....	118,027,930	162,936,630
1896.....	163,431,814	214,352,734
1897.....	185,443,816	242,140,306
1898.....	221,383,945	273,242,210
1899.....	153,393,184	194,293,112
1900.....	157,655,969	209,239,824
1901.....	132,641,828	187,909,664
1902.....	124,626,548	184,759,518
1903.....	140,438,822	196,653,957
1904.....	100,838,000	131,642,842
1905.....	126,465,729	177,496,229
1906.....	136,096,528	187,403,448
1907.....	132,438,798	181,237,178
1908.....	114,245,438	153,336,678
1909.....	113,415,385	152,896,845
1910.....	97,354,404	138,229,075
1911.....	117,421,376	157,295,756

*The following statement shows the receipts of flour, wheat and corn at Buffalo by lake for seventy-six years.*

YEAR.	Flour, barrels.	Wheat bushels.	Corn, bushels.
1836.....	139,178	304,990	204,355
1837.....	126,805	450,359	94,490
1838.....	277,620	933,117	34,148
1839.....	294,125	1,117,262	.....
1840.....	597,142	1,004,561	71,337
1841.....	730,040	1,635,000	201,031
1842.....	734,408	1,555,420	453,520
1843.....	917,517	1,827,241	223,966
1844.....	915,030	2,174,500	137,978
1845.....	746,750	1,770,740	54,200
1846.....	1,374,529	4,744,184	1,455,258
1847.....	1,857,000	6,489,100	2,862,800
1848.....	1,249,000	4,520,117	2,298,000
1849.....	1,207,435	4,943,978	3,321,651
1850.....	1,103,039	3,681,347	2,593,378
1851.....	1,258,224	4,167,121	5,988,775
1852.....	1,299,213	5,549,778	5,136,746
1853.....	975,557	5,420,043	8,065,793
1854.....	739,756	5,510,782	10,108,983
1855.....	937,761	8,022,126	9,711,430
1856.....	1,126,048	8,465,671	9,633,277
1857.....	845,953	8,334,179	5,713,611
1858.....	1,536,109	10,671,550	6,621,688
1859.....	1,420,383	9,234,652	3,113,653
1860.....	1,122,335	18,502,615	11,386,217
1861.....	2,159,591	27,105,219	21,024,657
1862.....	2,846,022	30,435,831	24,388,627
1863.....	2,978,088	21,240,348	20,086,912
1864.....	2,028,520	17,677,519	10,478,681
1865.....	1,788,393	13,437,888	19,840,901
1866.....	1,313,543	10,479,694	27,894,798
1867.....	1,440,056	11,879,685	17,873,638
1868.....	1,502,731	12,555,215	16,804,067
1869.....	1,598,487	19,228,546	11,549,403
1870.....	1,470,391	20,556,722	9,410,128
1871.....	1,278,077	22,606,217	26,110,769
1872.....	762,502	14,304,942	34,643,180
1873.....	1,259,205	30,618,372	28,550,828

*Receipts of flour, wheat and corn at Buffalo by lake.*—(Concluded).

YEAR.	Flour, barrels.	Wheat, bushels.	Corn, bushels.
1874.....	1,693,585	29,778,572	24,974,548
1875.....	1,810,402	32,987,656	22,593,891
1876.....	807,210	19,324,612	20,939,853
1877.....	693,044	23,284,405	33,362,866
1878.....	911,980	35,419,136	35,133,853
1879.....	897,105	37,788,501	32,990,993
1880.....	1,317,911	40,510,229	62,214,617
1881.....	1,051,250	18,495,320	34,434,830
1882.....	1,199,350	26,050,030	21,664,530
1883.....	2,071,570	24,105,420	34,775,040
1884.....	2,615,510	2,469,710	18,538,340
1885.....	2,993,280	27,130,400	21,028,230
1886.....	4,582,190	41,430,440	29,155,370
1887.....	4,001,360	48,111,180	30,199,490
1888.....	5,244,930	27,548,110	36,422,270
1889.....	5,480,710	26,051,600	47,127,150
1890.....	6,245,580	14,868,630	44,136,660
1891.....	7,093,340	76,945,960	29,616,390
1892.....	9,746,120	78,243,560	32,377,780
1893.....	10,562,090	68,243,750	40,539,976
1894.....	11,488,530	50,194,130	29,078,520
1895.....	8,971,740	46,484,510	38,244,960
1896.....	10,384,184	54,411,207	47,811,210
1897.....	11,339,298	50,584,719	55,553,741
1898.....	10,371,653	83,872,837	67,950,073
1899.....	8,810,097	48,232,016	53,503,404
1900.....	11,463,079	47,826,458	63,192,660
1901.....	11,053,439	61,294,248	30,539,848
1902.....	12,026,616	62,452,696	22,487,454
1903.....	11,243,027	40,455,328	43,364,979
1904.....	6,160,965	26,270,000	27,898,000
1905.....	10,201,100	40,436,616	32,745,046
1906.....	10,279,384	55,544,832	25,976,478
1907.....	9,759,676	66,658,138	28,477,767
1908.....	7,818,248	63,857,080	13,779,988
1909.....	7,899,292	61,084,797	16,027,578
1910.....	7,231,580	50,450,911	22,992,368
1911.....	7,054,640	67,495,523	30,384,745

*The following statement shows the receipts of oats, barley and rye at Buffalo by lake for seventy-six years.*

YEAR.	Oats, bushels.	Barley, bushels.	Rye, bushels.]
1836.....	28,640	4,876	1,500
1837.....	2,533	.....	3,260
1838.....	6,577	.....	909
1839.....	.....	.....	.....
1840.....	.....	.....	.....
1841.....	14,144	.....	2,150
1842.....	.....	4,710	1,268
1843.....	2,489	.....	1,332
1844.....	18,017	1,617	456
1845.....	23,300	.....	.....
1846.....	218,300	47,530	28,250
1847.....	446,000	.....	70,787
1848.....	560,000	.....	17,789
1849.....	362,384	.....	.....
1850.....	357,580	3,627	.....
1851.....	1,140,430	142,773	10,652
1852.....	2,596,231	497,913	112,251
1853.....	1,580,655	401,098	107,152
1854.....	4,401,739	313,757	177,066
1855.....	2,693,222	62,304	299,591
1856.....	1,733,382	46,327	245,810
1857.....	1,214,760	37,844	48,536
1858.....	2,275,231	308,374	125,214
1859.....	394,502	361,550	124,693
1860.....	1,209,594	262,158	80,822
1861.....	1,797,905	313,715	337,764
1862.....	2,624,982	428,124	791,564
1863.....	6,322,187	641,440	422,309
1864.....	11,682,637	465,097	633,726
1865.....	8,494,799	820,563	877,677
1866.....	10,227,472	1,606,384	1,245,485
1867.....	10,933,166	1,802,598	1,010,693
1868.....	11,492,472	637,124	947,323
1869.....	5,459,347	651,339	126,093
1870.....	6,846,983	1,821,154	626,154
1871.....	9,006,409	1,942,928	1,095,009
1872.....	6,050,045	3,088,925	301,809
1873.....	5,972,346	1,232,507	906,977

*Receipts of oats, barley and rye at Buffalo by lake.—(Concluded).*

YEAR.	Oats, bushels.	Barley, bushels.	Rye, bushels.
1874.....	5,396,781	1,154,948	167,301
1875.....	8,494,124	906,889	222,126
1876.....	2,397,257	2,615,081	761,795
1877.....	4,279,229	1,652,568	1,155,003
1878.....	5,122,972	1,375,184	2,135,007
1879.....	1,101,794	600,740	1,884,802
1880.....	649,350	335,925	743,451
1881.....	3,565,737	282,510	22,210
1882.....	1,620,170	701,500	767,360
1883.....	3,226,900	583,800	2,830,830
1884.....	3,174,730	534,130	2,247,060
1885.....	767,580	577,230	309,370
1886.....	1,014,670	787,730	126,630
1887.....	4,656,280	1,459,420	304,540
1888.....	7,897,310	842,090	513,720
1889.....	4,309,800	1,474,570	1,906,760
1890.....	13,860,780	5,165,700	1,281,030
1891.....	12,454,150	4,373,120	5,603,400
1892.....	16,500,250	4,600,970	1,316,530
1893.....	20,700,150	5,791,460	644,590
1894.....	15,560,230	8,625,090	501,195
1895.....	21,943,680	10,253,440	787,340
1896.....	40,107,499	16,697,744	4,404,354
1897.....	59,815,210	12,858,741	6,631,405
1898.....	45,501,233	11,391,332	6,821,694
1899.....	26,423,358	15,008,426	2,084,643
1900.....	28,422,256	9,868,196	1,314,743
1901.....	21,438,545	7,687,239	1,256,284
1902.....	15,891,387	8,969,865	3,716,628
1903.....	30,976,088	10,681,655	3,216,983
1904.....	19,124,000	15,665,000	1,736,600
1905.....	25,733,094	14,618,495	688,450
1906.....	23,951,155	13,681,058	1,243,640
1907.....	11,272,858	11,264,101	1,313,154
1908.....	10,455,716	11,649,064	856,944
1909.....	13,110,014	12,765,503	655,684
1910.....	12,366,891	11,207,763	336,471
1911.....	9,501,000	9,349,412	690,692

# INDEX.

	PAGE
Report of Charles E. Treman, Superintendent of Public Works.....	5-38
Statement of the appropriations for ordinary and extraordinary repairs, etc. ....	41
Statement of the expenditures made by the Superintendent of Public Works . . . . .	39-40
Summary of expenditures for ordinary repairs.....	42-44
Statement of expenditures for ordinary repairs by divisions.....	45
Expenditures for salaries, traveling expenses, clerk hire and office expenses of Superintendent of Public Works and assistants.....	46-47
General expenses Erie canal.....	48
Salaries of superintendents of repairs.....	46-47
Extraordinary repairs and improvements.....	48-63
Statement of payments made by the Superintendent of Public Works under legislative acts.....	64-69
Statement of payments made by the Superintendent of Public Works under the "Barge Canal Act".....	69-78
Statement of moneys paid into the State treasury by the Superintendent of Public Works.....	78-90
Statement of proposals received and contracts awarded, pursuant to special acts of the Legislature.....	90-92
Fees collected by the inspector of steam vessels.....	93-109
Superintendents of Public Works.....	110
Assistant superintendents .....	110
Employees in the office of Superintendent of Public Works.....	110
Boundaries of divisions and sections of the canals.....	110-112

## REPORT OF ASSISTANT SUPERINTENDENTS.

### EASTERN DIVISION.

Report of W. G. Robinson, assistant superintendent.....	113-119
Statement of expenditures by assistant superintendent, eastern division . . . . .	120-121

### *Erie Canal.*

Report of Owen Kearney, superintendent of repairs.....	122-123
Report of James Scanlon, superintendent of repairs.....	123
Report of J. T. Wasson, superintendent of repairs.....	124-125
Report of Oliver Hurst, superintendent of repairs.....	126
Report of Robt. A. Probst, superintendent of repairs.....	127-128
Report of John McGraw, superintendent of repairs.....	129

### *Champlain Canal.*

Report of John Richmond, superintendent of repairs.....	130
Report of Wm. H. Hickey, superintendent of repairs.....	131-133

	PAGE
Report of Patrick O'Grady, superintendent of repairs.....	134
Report of John Toole, superintendent of repairs.....	135-136
Report of George Neddo, superintendent of repairs.....	137
Report of E. M. Finch, superintendent of repairs.....	138-139

## MIDDLE DIVISION.

Report of Chas. C. Barrett, assistant superintendent.....	140
Report of D. W. Peck, assistant superintendent.....	141-146
Statement of expenditures by assistant superintendent on middle division .....	147-148

*Erie Canal.*

Report of D. F. Brietenstein, superintendent of repairs.....	149
Report of Jos. F. Burke, superintendent of repairs.....	150
Report of E. J. Clark, superintendent of repairs.....	151
Report of Wm. H. O'Brien, superintendent of repairs.....	152-154
Report of Albert B. Hallett, superintendent of repairs.....	155
Report of Chas. E. Whitman, superintendent of repairs.....	156-157

*Oswego Canal.*

Report of D. S. Burleigh, superintendent of repairs.....	158
Report of W. J. Hartnett, superintendent of repairs.....	159-160

*Black River Canal.*

Report of J. A. Fiske, superintendent of repairs.....	163
Report of Chas. Dorrity, superintendent of repairs.....	164-165

*Cayuga and Seneca Canal.*

Report of O. E. Emens, superintendent of repairs.....	160
Report of John Van Riper, superintendent of repairs.....	161-162

## WESTERN DIVISION.

Report of Chas McDonough, assistant superintendent.....	166-174
Statement of expenditures by assistant superintendent of western division .....	175-177

*Erie Canal.*

Report of R. A. Vanderboget, superintendent of repairs.....	178
Report of H. M. Littel, superintendent of repairs.....	179-182
Report of Jacob Allmeroth, superintendent of repairs.....	183
Report of Thos. J. Leddy, superintendent of repairs.....	184-186
Report of Charles L. Papworth, superintendent of repairs.....	187
Report of D. Gurney Spalding, superintendent of repairs.....	188-189
Report of W. J. Hingston, superintendent of repairs.....	190
Report of Edward H. Rogers, superintendent of repairs.....	191-192

## TABLES.

	PAGE
Opening and closing of Hudson river, Erie canal and Lake Erie....	195-197
Statement of number of locks, their lift in feet, total lockage and dimensions, etc., of all the canals in the State of New York.....	198-203
Table of principal places on the canals, with their distances from each other .....	204-210
Erie canal .....	204-206
Champlain canal and Glens Falls feeder.....	207
Oswego canal .....	208
Cayuga and Seneca canal.....	208
Oneida Lake canal and feeder.....	208
Black River canal.....	209
Oneida River improvement.....	209
General summary .....	209-210
Report of W. S. Van Keuren and G. C. Wehling, inspectors under the Steam Navigation Law.....	211-212
Annual account of property, in tons, moved each week upon the canals during the season of 1911.....	214-231
Way freight, east.....	232-235
Way freight, west.....	236-239
Way freight, east and west.....	240-244
Through freight, east.....	245-246
Through freight, west.....	247-250
Through freight, east and west.....	251-255
Total tons carried on all the canals during the season of 1911.....	256-261
Value of all the property carried on the canals during the season of 1911 .....	262-267
Property left at and between offices during the season of 1911.....	268-273
Property arriving at tide-water from the Erie canal during the season of 1911.....	274-276
Property arriving at tide-water from the Champlain canal during the season of 1911.....	277-278
Property arriving at tide-water from all canals during the season of 1911 .....	279-281
Value of all property left at tide-water from the canals during the season of 1911 .....	282-284
Property that went to New York from the Erie canal during the season of 1911.....	285-287
Property that went to New York from the Champlain canal during the season of 1911.....	288-290
Property that went to New York from all canals during the season of 1911 .....	290-292
Value of all property that went to New York during the season of 1911 .....	293-296
Quantity in tons cleared at Buffalo and value of the same.....	296
Quantity in tons left at Buffalo and value of the same.....	296
Property cleared on Oswego canal and value of same during the season of 1911.....	297
Property left on Oswego canal during the season 1911 and value of same .....	297



	PAGE
Property cleared on the Black River canal during the season of 1911 and value of same.....	298
Property left on the Black River canal during the season of 1911 and value of same .....	298
Property cleared on the Cayuga and Seneca canal during the season of 1911 and value of same.....	299
Property left on the Cayuga and Seneca canal during season of 1911 and value of same.....	299
Property cleared at Whitehall during season of 1911 and value of same .....	300
Property left at Whitehall during season of 1911 and value of same.	300
Shipments to and from Canada and Vermont and New York cleared and left at Whitehall during the season of 1911.....	301-303
Average lake and canal rates on wheat and corn since 1890.....	304-305
Average rate on wheat and corn by lake from Chicago to Buffalo during the season of 1911.....	306
Average canal rate on wheat and corn from Buffalo to New York...	306
Number of clearances at each office during the season of 1911.....	307
Receipts by all routes at New York May 1 to November 30, 1911....	308-310
Receipts by all routes at New York January 1 to December 31, 1911.	311-313
Separate tonnage, New York Central and Erie Railways and the canals, each year since 1853.....	314-316
Losses or gains in the tonnage of the New York Central and Erie Railways and the canals since 1853.....	317-319
Total ton arriving at tide-water for each of 74 years, and aggregate market value thereof .....	320-321
Total movement of articles on all canals, 1837 to 1911.....	322-325
Total tons of each class of articles arriving at Hudson river from Erie and Champlain canals, 1837 to 1911.....	326-329
Articles composing tonnage of the canals for season of 1911.....	330
Exports of flour, wheat and corn from New York, Baltimore, Philadelphia, Boston, New Orleans and Montreal, and percentages....	331-343
Lockages during season of 1911:	
Erie canal .....	344
Champlain canal .....	345
Oswego canal .....	345
Black River canal .....	346
Cayuga and Seneca canal .....	346
Property in tons moved on each and all canals, comprising tons of total amount.....	347-354
Total value of articles moved on all canals from 1837 to 1911.....	355-358
Total movement of flour, meal and grain from 1861 to 1911.....	359-364
Foreign exports of flour and grain from New York from 1861 to 1911 .....	365-370
Total tonnage of all property on the canals ascending and descending	371-372
Total grain receipts at Buffalo since 1836 and total grain, including flour .....	373-374
Receipts of flour, wheat and corn at Buffalo by lake for 76 years....	375-376
Receipts of oats, barley and rye at Buffalo by lake for 76 years....	377-378









UNIVERSITY OF MICHIGAN



3 9015 06819 4573

